# DELHI PUBLIC SCHOOL, GANDHINAGAR

**CLASS : 3** **SUBJECT: MATHS**

## Academic Session 2020-21

## CHAPTER- 1

## NUMBERS

0,1,2,3,4,5,6,7,8 and 9 are called **digits**. We use digits and place value to read and write numbers.

**Learning Outcomes-**

- Read and write 4 digit numbers and use them in daily life.
- Use place value to write 4digit numbers in the expanded form and vice-versa.
- Compare 4-digit numbers and arrange them in ascending/descending order.
- Make the greatest and smallest number with given digits.

Definition of thousand- A number equal to 10 times 100 can be defined as 1000.

**1 thousand =10 hundreds**

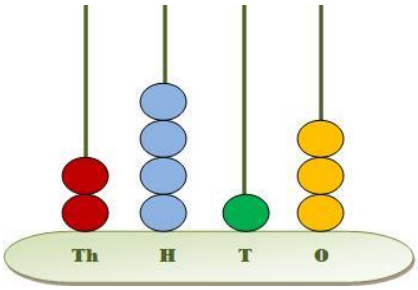
## Exercise – 1 (Textbook work )

Q.1 Write the number name of the following numbers:

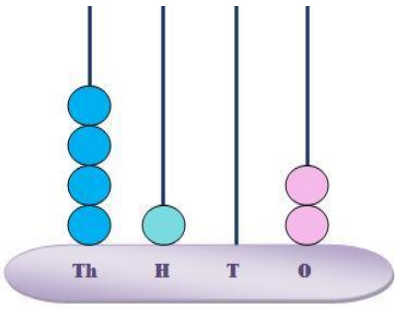
a) 4,380=Four thousand three hundred eighty
b) 5,893=Five thousand eight hundred ninety three.
c) 2,845=Two thousand eight hundred forty five.
d) 9,098= Nine thousand ninety eight.
e) 4,296= Four thousand two hundred ninety six.

Q.2 Write the number on abacus.

a)



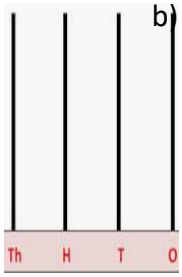

b)



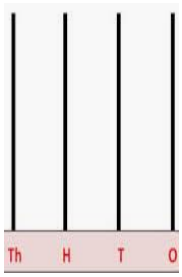

| | | | |
|---|---|---|---|
| **2** | **4** | **1** | **3** |

Q.3 Show the number on abacus.

a) 2314




b)




**Concept of face value and place value.**

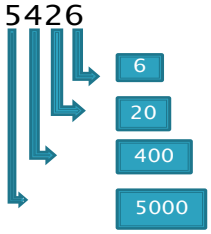
| Face value | Place value |
|---|---|
| The face value of a digit is the number itself. It remains the same in all places.<br>Example-<br><br>4523 = 5<br>2130 = 2<br>1056 = 0 | The place value depends on the place of the digit in the number.<br><br><br>4523 = 500<br>2130 = 2000<br>1056 = 0 |

## Exercise-2 (Textbook work )

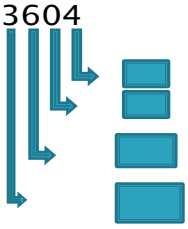
Exercise – 2

Q.1 Fill in the place values.

a) 5426

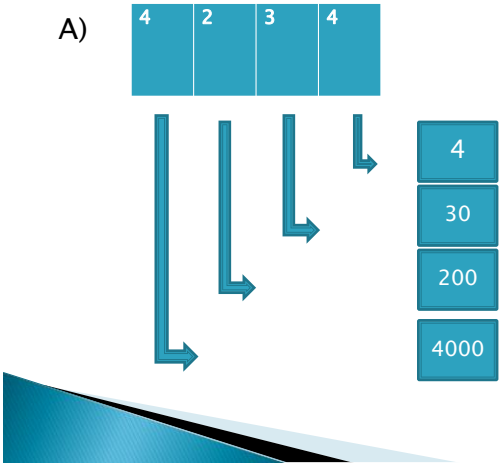



(b) 3604



## Q.2 Write the numeral.

A)




Q.3 Write the place and place value of the digit in colour.

| Number | Place | Place value |
|---|---|---|
| a) 2436 | tens | 30 or 3 tens |
| b) 5010 | hundreds | 0 |

**Expanded form-** When we expand a number to show the value of each of it's digit , it is the expanded form of the number.

For example:

a) 3684 = 3000+600+80+4

b) 5079 = 5000+0+70+9 or 5000+70+9

## Exercise- 3(Textbook work )

Q.1 Write the expanded form in figures.

a) 8173- 8000+100+70+3

b) 9590- 9000+500+90+0 or 9000+500+90

Q.2 Write the number.

a) 7000+400+50+9 = 7459

b) 1000+700+10 = 1710

**Comparing numbers ( explanation)**

A) Comparing numbers with different number of digits

The number with more digits is always greater

e.g 948 < 5,430

(Three digit number) (Four digit number)

B) Comparing numbers with same number of digits

1. First compare the digit at thousands place

5,394 > 4,289

As 5 > 4

Therefore 5,394 > 4,289

**Ascending Order** means arranging the numbers in increasing order.

For example:

a) 758, 959 , 166 , 345

Ans: 166, 345 , 758 ,959

**Descending Order** means arranging the numbers in decreasing order.

For example:

a) 560, 3879, 4890, 7935

Ans: 7935, 4890, 3879, 560

## Exercise- 4(Textbook work )

**Q1. Fill in blanks using the signs <,> or =**

a) 834 < 1590

b) 5910 < 5911

c) 8544 = 8544

**Q2. Circle the greatest number:**

a) 813, 1001, 9990,270.

Ans: 9990

b) 8461,8479,8439,8410.

Ans: 8479

**3. Circle the smallest number.**

a) 7478,7470,7473,7474

Ans: 7470

b) 9305, 953, 1999, 9315

Ans: 953

Q.4 Arrange the numbers in ascending order.

a) 3747 1674 9542

Ans. 1674 3747 9542

b) 8464 9894 3799 7877

Ans. 3799 7877 8464 9894

Q.5 Arrange the numbers in descending order.

a) 489, 241, 964, 639

Ans 964, 639, 489, 241

b) 3845, 1895, 4892, 2542

Ans 4892, 3845, 2542, 1895

FORMING GREATEST NUMBER AND SMALLEST NUMBER WITH THE GIVEN DIGITS.

Example-

Form the 4-digit greatest number using the given digits:

a) 7, 6, 9, 5

Greatest 4-digit number is 9765.

b) 0 , 3 , 7 , 1

Greatest 4-digit number is 7310

Form the 4-digit smallest number using the digits:

a) 6 , 9 , 0 , 7

Smallest 4-digit number is 6079

b) 4 , 8 , 9 , 1

Smallest 4-digit number is 1489

## Exercise- 5 (Textbook work )

Q.1 Use the given digits to make the smallest and greatest 4-digit numbers.

| Number | Greatest number | Smallest number |
|---|---|---|
| a) 6,5,0,9 | 9650 | 5069 |
| b) 8,1,1,5 | 8511 | 1158 |

**Odd and even numbers**

An **even number** is a **number** that can be put into pairs. Even numbers have 0,2, 4, 6 or 8 in the ones place.

An **odd number** is a **number** that cannot be put into pairs. Odd numbers have 1,3, 5, 7 or 9 in the ones place.

## Exercise-6 (Textbook work )

Q. Identify the number as even or odd.

a) 600 - even
b) 5532-even
c) 8011- odd
d) 677- odd

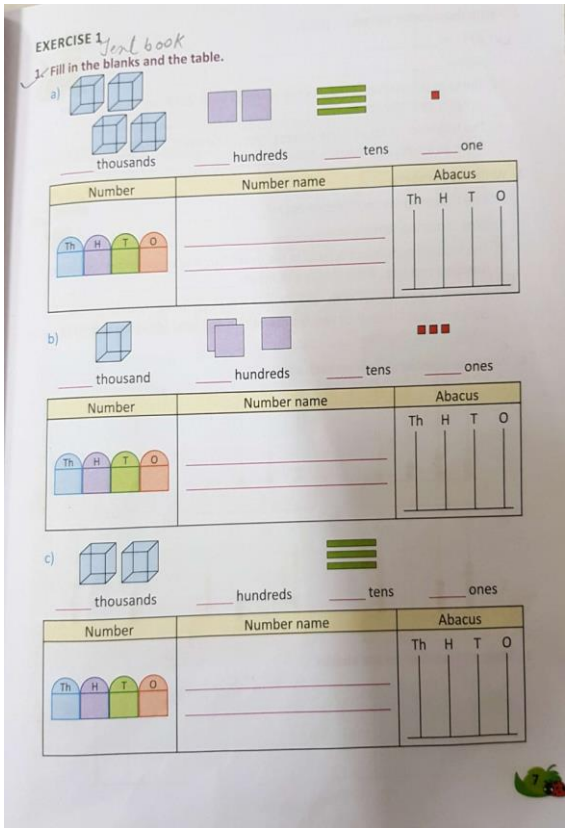
e) 5670- even
f) 8001- odd

## Exercise- 7(Textbook work )

Q.1 Fill in the blanks:

| | Predecessor | Between | Successor |
|---|---|---|---|
| a) | 3163 | 3164 | 3165 |
| b) | 5129 | 5130 | 5131 |
| c) | 7398 | 7399 | 7400 |

## SCANNED PAGES OF MATHS TEXTBOOK FOR REFERENCE


EXERCISE 1

1. Fill in the blanks and the table.

a) ____ thousands ____ hundreds ____ tens ____ one

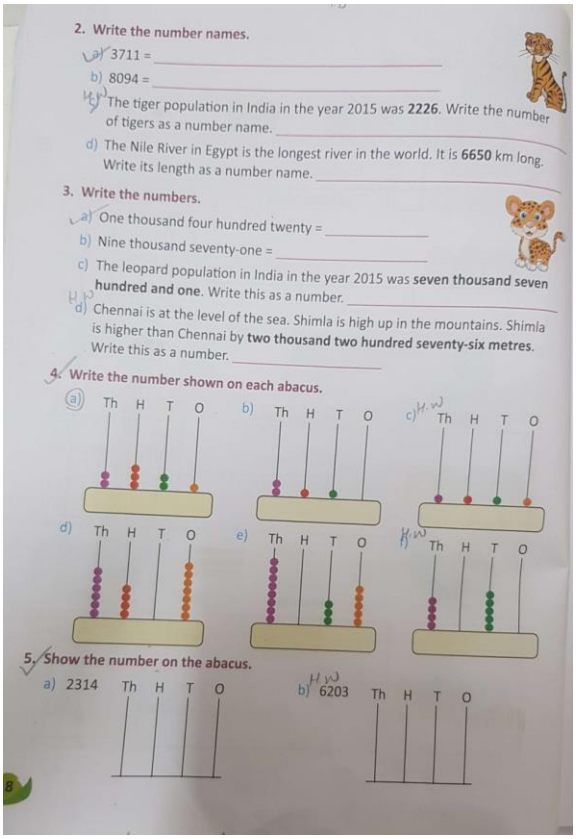
| Number | Number name | Abacus |
|---|---|---|
| Th H T O | | Th H T O |

b) ____ thousand ____ hundreds ____ tens ____ ones

| Number | Number name | Abacus |
|---|---|---|
| Th H T O | | Th H T O |

c) ____ thousands ____ hundreds ____ tens ____ ones

| Number | Number name | Abacus |
|---|---|---|
| Th H T O | | Th H T O |


2. Write the number names.

a) 3711 = _____

b) 8094 = _____

c) The tiger population in India in the year 2015 was **2226**. Write the number of tigers as a number name. _____

d) The Nile River in Egypt is the longest river in the world. It is **6650** km long. Write its length as a number name. _____

3. Write the numbers.

a) One thousand four hundred twenty = _____

b) Nine thousand seventy-one = _____

c) The leopard population in India in the year 2015 was **seven thousand seven hundred and one**. Write this as a number. _____

d) Chennai is at the level of the sea. Shimla is high up in the mountains. Shimla is higher than Chennai by **two thousand two hundred seventy-six metres**. Write this as a number. _____

4. Write the number shown on each abacus.

a) b) c) d) e) f)

Th H T O

5. Show the number on the abacus.

a) 2314 b) 6203

Th H T O

## EXERCISE 2

1. Fill in the place values.

a) 6 3 4 8

8
40
300
6000

b) 1 7 8 3

c) 5 4 2 6

d) 3 6 0 4

2. Write the numeral.

a)
4
30
300
8000

b)
1
50
900
4000

c)
2
0
400
7000

d)
0
0
0
3000

3. Write the place and place value of the digit in colour.

| | Number | Place | Place value | | Number | Place | Place value |
|---|---|---|---|---|---|---|---|
| a) | 2436 | tens | | b) | 3107 | | |
| c) | 7198 | | | d) | 6497 | | |
| e) | 5010 | | | f) | 5010 | | |

### ◆ Expanded form

The expanded form of 7534 is:

7534 = 7 thousands + 5 hundreds + 3 tens + 4 ones (in words)

= 7000 + 500 + 30 + 4 (in figures)

## EXERCISE 3

1. Write the expanded form in figures.

a) 3684 = 3000 + 600 + 80 + 4

b) 5079 = ____ + ____ + ____ + ____

c) 8173 = ____ + ____ + ____ + ____

d) 4682 = ____ + ____ + ____ + ____

e) 9590 = ____ + ____ + ____ + ____

The place value of the digit 0 in a number is always zero. So we always write '0' whatever may be its position in a number.

2. Write the number.

a) 7000 + 400 + 50 + 9 = ____

b) 6000 + 0 + 30 + 1 = ____

c) 1000 + 700 + 10 = ____

### ◆ Comparing numbers

The junior school library has 5430 books. The senior school library has 4988 books. Which library has more books?

To answer this question you have to find which number is greater—5430 or 4988.

**Comparing numbers with different number of digits**

The number with more digits is always greater.

**Examples:** 2125 > 949 3456 > 99 3878 > 8

11

**Comparing numbers with same number of digits**

1. First compare the thousands digits. 5468 > 4972 as 5 > 4
2. If the thousands digits are the same, compare the hundreds digits. 7679 > 7590 as 6 > 5
3. If the thousands and hundreds digits are the same, compare the tens digits. 8453 < 8472 as 5 < 7
4. If the thousands, hundreds and tens digits are the same, compare the ones digits. 7536 > 7530 as 6 > 0

**Ordering numbers**

**Example 1:** Identify the biggest number and the smallest number.

5608 5809 897 462

Biggest number: 5809 Smallest number: 462

**Example 2:** Arrange the numbers 99, 5403, 954 and 3854 in ascending (increasing) order.

Write the smallest number first and cut it out from the list → 99; 99, 5403, 954, 3854

Write the next bigger number and cut it out from the list → 954; 99, 5403, 954, 3854

Write the next bigger number and cut it out from the list → 3854; 99, 5403, 954, 3854

Write the biggest number and cut it out from the list → 5403; 99, 5403, 954, 3854

**Answer:** 99, 954, 3854, 5403

**Example 3:** Arrange in descending order: 2790, 4780, 7923, 5613

Follow the same procedure as in Example 2, but write the biggest number first, then the next smaller number and so on. Write the smallest number last.

Biggest number: 7923 Next smaller number: _____

Next smaller number: _____ Smallest number: _____

**Answer:** 7923, _____, _____, _____

## EXERCISE 4

1. Fill in the blanks with >, < or = signs.

a) 834 < 1590 b) 999 ____ 1000

c) 4375 ____ 4162 d) 5910 ____ 5911

e) 7832 ____ 7838 f) 8544 ____ 8544

12

2. Circle the greatest number.

a) 813 1001 9990 270 b) 1285 1055 1135 1288

c) 8461 8479 8439 8410 d) 98 1020 786 999

3. Circle the smallest number.

a) 296 8532 100 1795 b) 8421 2148 4813 1589

c) 7478 7470 7473 7474 d) 9305 953 1999 9315

4. Arrange the numbers in ascending order.

a) 3747 1674 9542

b) 8653 653 865

c) 8464 9894 3799 7877

d) 7582 7959 7166 7745

e) 3542 3561 3595 3519

5. Arrange the numbers in descending order.

a) 2143 4782 5365

b) 8104 7728 6540 4322

c) 5321 5877 5108 5233

d) 4492 4409 4465 4423

e) 9243 9212 9290 9277

### ◆ Forming greatest and smallest numbers

**Example:** Form the greatest and smallest 4-digit numbers using the digits:

7 6 0 9

To form the greatest 4-digit number, arrange the digits in decreasing order.

The greatest 4-digit number is: 9 7 6 0

To form the smallest 4-digit number, arrange the digits in increasing order. But you cannot have 0 in the thousands place, otherwise you get: 0 6 7 9 = 6 7 9 which is a 3-digit number.

So if there is a 0, put it in the hundreds place and not in the thousands place.

The smallest 4-digit number is: 6 0 7 9

## EXERCISE 5

1. Use the given digits to make the smallest and greatest 4-digit numbers.

| | greatest number | smallest number |
|---|---|---|
| a) 4, 3, 7, 1 | | |
| b) 6, 5, 0, 9 | | |
| c) 1, 0, 7, 3 | | |
| d) 8, 1, 1, 5 | | |

### ◆ Odd and even numbers

You have read in Class 2 that:
Numbers that can be put into pairs are called **even numbers.**
Numbers that cannot be put into pairs are called **odd numbers.**

Even numbers have 0, 2, 4, 6 or 8 in the ones place.

Odd numbers have 1, 3, 5, 7 or 9 in the ones place.

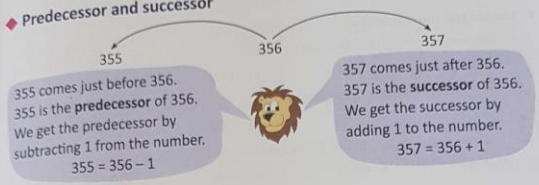
## EXERCISE 6

1. Colour the boxes with even numbers green. Colour the boxes with odd numbers blue.

| | | | | | |
|---|---|---|---|---|---|
| 67 | 677 | 776 | 600 | 700 | 701 |
| 2425 | 2426 | 2427 | 2428 | 2429 | 2430 |
| 8000 | 8001 | 8011 | 8022 | 8123 | 8888 |
| 5670 | 7650 | 7561 | 5761 | 5055 | 5550 |



### ◆ Predecessor and successor




## EXERCISE 7

1. Fill in the blanks.

| | Predecessor | Between | Successor |
|---|---|---|---|
| a) | 3163 | 3164 | 3165 |
| b) | 9479 | | 9481 |
| c) | 5788 | 5789 | |
| d) | | 5130 | |
| e) | | 7399 | |

## SKILLS SECTION (calculation, application and analysing skills)

### Mental Maths

What is:

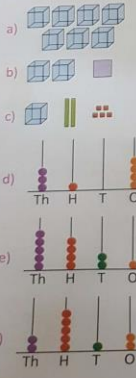
| 1. 1 less than | 2. 1 more than | 3. 10 less than | 4. 10 more than |
|---|---|---|---|
| a) ____ 4783 | a) 3862 ____ | a) ____ 6580 | a) 2004 ____ |
| b) ____ 5604 | b) 7000 ____ | b) ____ 7933 | b) 7952 ____ |
| c) ____ 3299 | c) 5999 ____ | c) ____ 8591 | c) 3491 ____ |

| 5. 100 less than | 6. 100 more than | 7. 1000 less than | 8. 1000 more than |
|---|---|---|---|
| a) ____ 7542 | a) 2891 ____ | a) ____ 9284 | a) 8049 ____ |
| b) ____ 6135 | b) 6013 ____ | b) ____ 5009 | b) 1450 ____ |
| c) ____ 8085 | c) 5940 ____ | c) ____ 1676 | c) 999 ____ |

### Mixed Bag

1. Choose the correct answer.
   a) The smallest 4-digit number is: i. 1111 ii. 1000 iii. 0001 iv. 1001
   b) The greatest 4-digit number is: i. 9990 ii. 9999 iii. 10000 iv. 9000
   c) The smallest 4-digit number formed by the digits 6, 0, 0, 9 is: i. 0069 ii. 6009 iii. 9006 iv. 6900
   d) The face value of 5 in 3567 is: i. 5000 ii. 500 iii. 50 iv. 5
   e) Which is the largest 4-digit even number? i. 9999 ii. 9998 iii. 9000 iv. 10000
   f) The place value of 0 in 6079 is: i. 0 ii. 10 iii. 100 iv. 1000

2. Write the number and the number name.






3. Write the face value and place value of the digit in red.

| | face value | place value |
|---|---|---|
| a) 7596 | | |
| b) 8201 | | |
| c) 1355 | | |
| d) 7420 | | |
| e) 5085 | | |

4. Write in the expanded form.
   a) 9473 = 9 Th + 4 H + 7 T + 3 O = 9000 + 400 + 70 + 3
   b) 7782 = ____ Th + ____ H + ____ T + ____ O = ____
   c) 4803 = ____ Th + ____ H + ____ T + ____ O = ____
   d) 6200 = ____ Th + ____ H + ____ T + ____ O = ____
   e) 8070 = ____ Th + ____ H + ____ T + ____ O = ____

5. Fill in the blanks with <, >, or =.
   a) 4359 ◯ 682 b) 9833 ◯ 3601 c) 3647 ◯ 3647
   d) 5906 ◯ 5449 e) 8859 ◯ 8853 f) 6938 ◯ 6939

6. Arrange in ascending order.
   a) 4563 5368 3616 6805
   b) 2506 2560 2056 2755
   c) 5009 5090 5900 5823 4999
   d) 9091 9109 9901 9190 9019

7. Arrange in descending order.
   a) 7493 8962 5449 3609
   b) 7306 7603 7036 3760

# DELHI PUBLIC SCHOOL, GANDHINAGAR

**CLASS : 3** **SUBJECT: MATHS**

## Academic Session 2020-21

## CHAPTER- 2 Addition

### DEFINITION OF ADDITION

The addition is taking two or more numbers and adding them together, that is, it is, the total sum of 2 or more numbers.

**How many apples are there in all?**

There are 7 apples in one basket and 4 apples in the other. So, we add 7 and 4 to find the total number of apples. To add 7 and 4, we can count forward 4 steps from 7.The symbol used to indicate Addition is + (plus symbol).

So, 7 and 4 can be written as 7 + 4 =11

**What are addends?**

- The numbers which are added are called **Addends.**
- For Example:

  The number 7 and 8 are addends and the sum is **15**
- 7 (addend)
- \+ 8 (addend)

  15 (sum)
- The answer of addition is called **sum**.
- The symbol of addition is **+**

**Addition of four digit numbers without regrouping.**

- **Add 3325 and 2231**

- ❖ Adding 4-digit numbers is just like adding 3-digit numbers.
- ❖ Arrange the numbers one below other according to their places and then add.
- ❖ Always start from the ones.

**CONCEPT SECTION**

- Step-1 Add the ones.
- Step-2 Add the tens.
- Step-3 Add the hundreds.
- Step-4 Add the thousands.

```
    Th  H  T  O
    3   3  2  5
+   2   2  3  1
    5   5  5  6
```

**EXERCISE 1 : Add**

a)
```
  2 4 6 3
+ 1 3 2 4
  3 7 8 7
```

b)
```
  4 0 6 5
+ 2 8 3 1
  6 8 9 6
```

c)
```
  6 0 0 3
+ 2 0 6 5
  8 0 6 8
```

d)
```
  2 1 1 2
+ 2 1 1 2
  4 2 2 4
```

**EXERCISE 1 : WORD PROBLEM**

I ) In a school library , there are 3425 story books and 2304 subject books. How many books are there in the library?

Solution :

```
Number of story books =          3 4 2 5
Number of subject books = +      2 3 0 4
Total number of  books =         5 7 2 9
```

Ans : There are **5729** books in the library.

**Adding 3-digit numbers with regrouping.**

- Example: Add 643 and 576

- Step-1 Add the ones. (3 + 6 =9)

- Step-2 Add the tens

  and regroup : (4 + 7 =11)

  11 tens = 1 hundred +1 ten

- Step-3 Add the hundreds

  and regroup : ( 1+ 6+ 5 =12)

  12 hundreds =1thousand + 2 hundred

| Th | H | T | O |
|---|---|---|---|
| | (1) | | |
| | 6 | 4 | 3 |
| + | 5 | 7 | 6 |
| 1 | 2 | 1 | 9 |

## EXERCISE 2

a)

| | | | |
|---|---|---|---|
| | (1) | | |
| | 3 | 4 | 9 |
| + | 8 | 3 | 8 |
| 1 | 1 | 8 | 7 |

b)

| | | | |
|---|---|---|---|
| | (1) | | |
| | 5 | 3 | 6 |
| + | 6 | 0 | 7 |
| 1 | 1 | 4 | 3 |

c)

| | | | |
|---|---|---|---|
| | (1) | (1) | |
| | 8 | 8 | 8 |
| + | 2 | 2 | 2 |
| 1 | 1 | 1 | 0 |

d)

| | | | |
|---|---|---|---|
| | (1) | (1) | |
| | 4 | 9 | 1 |
| + | 9 | 0 | 9 |
| 1 | 4 | 0 | 0 |

## EXERCISE 2 : WORD PROBLEM

J ) There are 6 6 3 horses and 5 2 7 cows in a farm. How many animals are there in the farm?

Solution :

| | | | |
|---|---|---|---|
| Number of horses in a farm = | (1) | | |
| | 6 | 6 | 3 |
| Number of cows in a farm = | + 5 | 2 | 7 |
| Total number of animals in a farm = | 11 | 9 | 0 |

Ans : There are **1190** animals in a farm.

## Adding 4 - digit numbers with regrouping.

- **Example: Add 2808 and 4267**

**Step-1 Add the ones. 8 + 7 = 15 (15 ones = 1 ten + 5 ones)**

**Step-2 Add the tens. 1 + 0 + 6 =7**

**Step-3 Add the hundreds. 8 + 2 = 10 (10 hundreds =1 thousand )**

**Step-4 Add the thousands. 1 + 2 + 4 = 7**

| | Th | H | T | O |
|---|---|---|---|---|
| | (1) | | (1) | |
| | 2 | 8 | 0 | 8 |
| + | 4 | 2 | 6 | 7 |
| | 7 | 0 | 7 | 5 |

## CONCEPTS SECTION

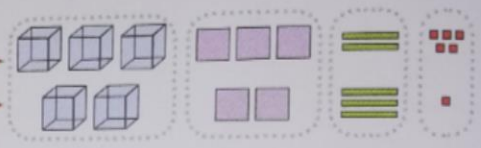
### ◆ Addition of 4-digit numbers without regrouping

**Example:** Add 3325 and 2231.

Adding 4-digit numbers is just like adding 3-digit numbers.
Arrange the numbers one below the other as shown and add.
Always start from the ones.

Step 1: Add the ones.
Step 2: Add the tens.
Step 3: Add the hundreds.
Step 4: Add the thousands.

| Th | H | T | O |
|---|---|---|---|
| 3 | 3 | 2 | 5 |
| + 2 | 2 | 3 | 1 |
| 5 | 5 | 5 | 6 |



**EXERCISE 1:** Add.

a) 2 4 6 3 + 1 3 2 4 =

b) 4 0 6 5 + 2 8 3 1 =

c) 7 0 1 1 + 1 0 7 8 =

d) 5 0 2 6 + 4 4 5 3 =

e) 4 2 0 8 + 3 6 5 1 =

f) 6 0 0 3 + 2 0 6 5 =

g) 2 1 4 5 + 7 8 5 4 =

h) 2 1 1 2 + 6 0 1 6 =

i) In a school library, there are 3425 story books and 2304 subject books. How many books are there in the library?

j) Aarti has two stamp albums. One album has 2306 stamps. The other album has 3143 stamps. How many stamps does Aarti have in all?

### ◆ Adding 3-digit numbers with regrouping

When you add 3-digit numbers, sometimes you get a 4-digit answer.

Add 643 and 576.

**Step 1:** Add the ones.
3 + 6 = 9

**Step 2:** Add the tens and regroup.
4 + 7 = 11
11 tens = 1 hundred + 1 ten

**Step 3:** Add the hundreds and regroup.
1 + 6 + 5 = 12
12 hundreds = 1 thousand + 2 hundreds

| | Th | H | T | O |
|---|---|---|---|---|
| | | 1 | | |
| | | 6 | 4 | 3 |
| + | | 5 | 7 | 6 |
| | 1 | 2 | 1 | 9 |

**Answer:** 1219

**EXERCISE 2: Add.**

a) 3 4 9 + 8 3 8 =

b) 4 4 4 + 8 6 4 =

c) 5 3 6 + 6 0 7 =

d) 6 6 0 + 9 6 0 =

e) 4 5 6 + 6 5 4 =

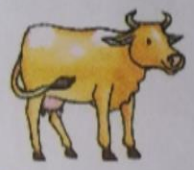
f) 8 8 8 + 2 2 2 =

g) 3 8 6 + 8 3 9 =

h) 4 9 1 + 9 0 9 =

i) 559 children bought books from a school bookshop on the first day. 463 children bought books on the second day. How many children bought books in the two days?

) There are 663 horses and 527 cows in a farm. How many animals are there in the farm?



## Adding 4-digit numbers with regrouping

*Refer Maths Lab Activity on page 32*

**ample 1:** Add 2808 and 4267.

**Step 1:** Add the ones: 8 + 7 = 15
15 ones = 1 ten + 5 ones

**Step 2:** Add the tens: 1 + 0 + 6 = 7

| | Th | H | T | O |
|---|---|---|---|---|
| | 1 | | 1 | |
| | 2 | 8 | 0 | 8 |
| + | 4 | 2 | 6 | 7 |
| | 7 | 0 | 7 | 5 |

# DELHI PUBLIC SCHOOL, GANDHINAGAR

**CLASS : 3** **SUBJECT: MATHS**

## Academic Session 2020-21

## CHAPTER- 2

# Chapter : 2 Addition

**Adding 4 - digit numbers with regrouping.**

- **Example: Add 2808 and 4267**

**Step-1 Add the ones. 8 + 7 = 15 (15 ones = 1 ten + 5 ones)**

**Step-2 Add the tens. 1 + 0 + 6 =7**

**Step-3 Add the hundreds. 8 + 2 = 10 (10 hundreds =1 thousand )**

**Step-4 Add the thousands. 1 + 2 + 4 = 7**

| Th | H | T | O |
|---|---|---|---|
| | (1) | | (1) |
| 2 | 8 | 0 | 8 |
| + 4 | 2 | 6 | 7 |
| 7 | 0 | 7 | 5 |

## EXERCISE 3

a)

| | | | |
|---|---|---|---|
| | (1) | (1) | |
| | 1 | 3 | 2 3 |
| + | 4 | 9 | 6 8 |
| | 6 | 2 | 9 1 |

b)

| | | | |
|---|---|---|---|
| | (1) | (1) | |
| | 3 | 4 | 1 5 |
| + | 3 | 8 | 7 9 |
| | 7 | 2 | 9 4 |

c)

| | | | |
|---|---|---|---|
| | (1) | (1) | |
| | 6 | 7 | 0 2 |
| + | 1 | 4 | 3 9 |
| | 8 | 1 | 4 1 |

d)

| | | | |
|---|---|---|---|
| | | (1) | |
| | 5 | 1 | 8 4 |
| + | 4 | 3 | 6 5 |
| | 9 | 5 | 4 9 |

## EXERCISE 3 : WORD PROBLEM

i) In a train, there are 1570 first-class seats and 2550 second-class seats. How many people can sit in the train?

Solution :

| | | | | |
|---|---|---|---|---|
| | | (1) | (1) | |
| Number of first-class seats in the train = | | 1 | 5 | 7 0 |
| Number of second-class seats in the train = | + | 2 | 5 | 5 0 |
| Total number of people can sit in the train = | | 4 | 1 | 2 0 |

Ans : There are **4120** people can sit in the train.

## EXERCISE 4

a)
$$\begin{array}{r} 2\ 1\ 4\ 3 \\ +\ 1\ 5\ 4\ 1 \\ +\ 2\ 0\ 1\ 4 \\ \hline 5\ 6\ 9\ 8 \end{array}$$

b)
$$\begin{array}{r} 7\ 0\ 4\ 3 \\ +\ \ 1\ 3\ 2 \\ +\ \ 2\ 2\ 3 \\ \hline 7\ 3\ 9\ 8 \end{array}$$

c)
$$\begin{array}{r} {\scriptstyle 1\ \ 1\ \ \ \ } \\ 2\ 3\ 4\ 6 \\ +1\ 1\ 0\ 8 \\ +6\ 4\ 5\ 3 \\ \hline 9\ 9\ 0\ 7 \end{array}$$

d)
$$\begin{array}{r} {\scriptstyle 1\ \ 1\ \ \ \ } \\ 3\ 6\ 0\ 0 \\ +\ \ \ 9\ 9\ 4 \\ +\ 2\ 2\ 2\ 2 \\ \hline 6\ 8\ 1\ 6 \end{array}$$

## PROPERTIES OF ADDITION:

- **Order property** : Two numbers can be added in any order .Their sum remains the same.

$$3\,0\,4\,3 + 2\,6\,5\,2 = 5\,6\,9\,5$$
OR
$$2\,6\,5\,2 + 3\,0\,4\,3 = 5\,6\,9\,5$$

- **Grouping property** : Three numbers can be added in any order. Their sum remains the same.

$$(3\,4\,2\,6 + 2\,0\,4\,1) + 1\,2\,3\,1 = 6\,6\,9\,8$$
OR
$$(2\,0\,4\,1 + 3\,4\,2\,6) + 1\,2\,3\,1 = 6\,6\,9\,8$$
OR
$$(1\,2\,3\,1 + 2\,0\,4\,1) + 3\,4\,2\,6 = 6\,6\,9\,8$$

- **Zero property** : When zero is added to a number , or when a number is added to 0 , the sum is the number itself.

$$2\,4\,3\,2 + 0 = 2\,4\,3\,2$$

OR

$$0 + 2\,4\,3\,2 = 2\,4\,3\,2$$

**EXERCISE 5 : USE THE PROPERTIES OF ADDITION TO ADD**

a) 4 6 0 3 + 2 1 1 2 = ___2112_____ + 4 6 0 3

b) 8 0 8 0 + 1 0 10_____ = 1 0 1 0 + 8 0 8 0

c) 3 1 1 8 + 2 6 0 + 1 2 1 2 = 1 2 1 2 + 3 1 1 8 + __2 6 0_____

d) 0 + 1 1 6 = 1 1 6 + __0_____

e) 8 1 8 1 + 0 = __8 1 8 1_____

f) 0 + 2 0 9 0 = ____2 0 9 0____

g) 3 4 8 9 + 1 = 3 4 9 0

h) 2 6 0 0 + 1 = 2 6 0 1

i) ____0____ + 2 0 6 7 = 2 0 6 7

j) ____1____ + 4 1 1 9 = 4 1 2 0

**MENTAL MATHS :**

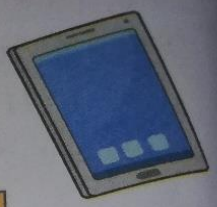
- **Work these out mentally.**

1. 82 + 8 = 90
2. 5000 + 40 = 5040
3. 48 + 12 = 60
4. 53 + 47 = 100
5. 609 + 10 = 619
6. 299 + 100 = 399

**Step 3:** Add the hundreds: 8 + 2 = 10
10 hundreds = 1 thousand + 0 hundreds

**Step 4:** Add the thousands: 1 + 2 + 4 = 7

**Answer:** 7075



**Example 2:** Manav's tablet computer costs ₹ 5235. Rachna's tablet computer costs ₹ 1275 more than Manav's tablet computer. What is the cost of Rachna's tablet computer?

Look at the bars. Cost of Manav's tablet computer: ₹ 5235

Cost of Rachna's tablet computer: ₹ 5235 | ₹ 1275

You can see that to get the cost of Rachna's tablet computer, you have to add ₹ 5235 and ₹ 1275.

$$\begin{array}{r} 5235 \\ +\,1275 \\ \hline \end{array}$$

Rachna's tablet computer costs ₹ _____

**EXERCISE 3: Add.**

a) $\begin{array}{r} 1323 \\ +\,4968 \\ \hline \end{array}$

b) $\begin{array}{r} 2089 \\ +\,3411 \\ \hline \end{array}$

c) $\begin{array}{r} 3415 \\ +\,3879 \\ \hline \end{array}$

d) $\begin{array}{r} 8436 \\ +\,1086 \\ \hline \end{array}$

e) $\begin{array}{r} 7399 \\ +\,1022 \\ \hline \end{array}$

f) $\begin{array}{r} 6702 \\ +\,1439 \\ \hline \end{array}$

g) $\begin{array}{r} 6303 \\ +\,1807 \\ \hline \end{array}$

h) $\begin{array}{r} 5184 \\ +\,4365 \\ \hline \end{array}$

i) In a train, there are 1570 first-class seats and 2550 second-class seats. How many people can sit in the train?

j) 2559 people visited the Trade Fair in Delhi on Saturday. On Sunday, 3405 more people than Saturday visited the Trade Fair. How many people visited the Trade Fair on Sunday?

***Example 3:*** What is the sum of 3250, 1336 and 5405?

$$\begin{array}{r} 3250 \\ 1336 \\ +\,5405 \\ \hline 9991 \end{array}$$

**EXERCISE 4:**

**Add.**

a) 2143 + 1541 + 2014 =

b) 1213 + 3440 + 3101 =

c) 7043 + 132 + 223 =

d) 7154 + 1720 + 126 =

e) 932 + 1475 + 3836 =

f) 2346 + 1108 + 6453 =

g) 3432 + 2980 + 231 =

h) 3600 + 994 + 2222 =

## ♦ Properties of addition

### 1. Order property

Two numbers can be added in any order. Their sum remains the same.

3043 men and 2652 women add up to 5695 people.

2652 women and 3043 men also add up to 5695 people.

$$\begin{array}{r} 3043 \\ +2652 \\ \hline 5695 \end{array} \quad \text{and} \quad \begin{array}{r} 2652 \\ +3043 \\ \hline 5695 \end{array}$$

3043 + 2652 = 2652 + 3043

### 2. Grouping property

Three numbers can be added in any order.
Their sum remains the same.

To add three numbers, group any two numbers and add.
Add the sum to the third number.

(3426 men + 2041 women) + 1231 children = 6698 people

(2041 women + 3426 men) + 1231 children = 6698 people

(1231 children + 2041 women) + 3426 men = 6698 people

To add 9, add 10 and then subtract 1. To find 149 + 9:

First add 10: 149 + 10 = 159 Then, subtract 1: 159 – 1 = 158

To add 8, add 10 and then subtract 2. To find 2137 + 8:

First add 10: 2137 + 10 = 2147 Then, subtract 2: 2147 – 2 = 2145

Let us extend this further.

To add 19, first add 20 and then subtract 1. To find 158 + 19:

First add 20: 158 + 20 = 178 Then, subtract 1: 178 – 1 = 177

To add 18, first add 20, then subtract 2. To find 2147 + 18:

First add 20: 2147 + 20 = 2167 Then, subtract 2: 2167 – 2 = 2165

**1. Work out the following mentally.**

a) 149 + 9 = _____ b) 362 + 9 = _____ c) 205 + 8 = _____

d) 1617 + 9 = _____ e) 2833 + 8 = _____ f) 1238 + 7 = _____ (how will you do this?)

g) 218 + 19 = _____ h) 317 + 19 = _____ i) 256 + 18 = _____

j) 612 + 18 = _____ k) 1166 + 19 = _____ l) 1117 + 17 = _____

**2. Work these out mentally.**

a) 82 + 8 = _____ b) 400 + 300 = _____ c) 5000 + 40 = _____

d) 48 + 12 = _____ e) 1400 + 600 = _____ f) 53 + 47 = _____

g) 10 more than 991 = _____ h) 609 + 10 = _____

i) 80 + 30 = _____ j) 299 + 100 = _____

## Mixed Bag

**1. Choose the correct answer.**

a) If 1256 + 2456 is 3712, 2456 + 1256 is:

i. < 3721 ii. > 3721 iii. = 3712 iv. none of these

b) If 2406 + 3128 + 1096 = 6630, which of the following is true?

i. (2406 + 3128) + 1096 = 6630 ii. 2406 + (3128 + 1096) = 6630

iii. (2406 + 1096) + 3128 = 6630 iv. All of these are true

c) 100 more than 4506 is:

i. 4507 ii. 4516 iii. 5506 iv. none of these

d) The sum of the smallest 4-digit number and the largest 3-digit number is:

i. 1000 ii. 9999 iii. 1099 iv. 1999

**2. Work these out in your notebook. Write the sum.**

a) 325 + 780 = ☐

b) 654 + 456 = ☐

c) 505 + 595 = ☐

d) 2043 + 5033 = ☐

e) 3333 + 2135 = ☐

f) 63 + 1015 = ☐

g) 4850 + 3250 = ☐

h) 4207 + 3489 = ☐

i) 3848 + 5909 = ☐

j) 6980 + 2289 = ☐

k) 5107 + 98 = ☐

l) 6378 + 967 = ☐

**3. Find the sum.**

a)
$$\begin{array}{r} 456 \\ +1343 \\ +5100 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 6300 \\ +\ 400 \\ +1675 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 5013 \\ +3207 \\ +\ 862 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 6421 \\ +1364 \\ +1214 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 144 \\ +1399 \\ +1660 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 333 \\ +2460 \\ +\ 222 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 49 \\ +1105 \\ +2900 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 1213 \\ +2678 \\ +4432 \\ \hline \end{array}$$

i) 333 + 2460 + 22 = ☐

j) 2347 + 123 + 29 = ☐

## Applying addition (story sums)

a) Jim has 2084 stamps. His sister Simi has 5018 stamps. How many stamps do they have altogether?

**DELHI PUBLIC SCHOOL, GANDHINAGAR**

**CLASS : 3** **SUBJECT: MATHS**

**Academic Session 2020-21**

**CHAPTER- 3**

# Subtraction

DEFINITION

**Subtraction is taking one number away from another.**

5 ⇨ **Minuend**
-2 ⇨ **Subtrahend**
3 ⇨ **Difference**

The symbol of subtraction is (-).

Terms Used In Subtraction are take away , left , how many more than , how many more are needed , remained , difference , give away .

## SUBTRACTION OF 4-DIGIT NUMBER WITHOUT REGROUPING

**Concept Section**:

Subtracting four digit number is like 3-digit numbers only. First arrange the number in columns one below the other,according to their places. The greater number should be above the smaller number.

For example: 3748-2543

| Th | H | T | O | |
|---|---|---|---|---|
| 3 | 7 | 4 | 8 | ⇨ **Minuend** |
| -2 | 5 | 4 | 3 | ⇨ **Subtrahend** |
| 1 | 2 | 0 | 5 | ⇨ **Difference** |

## Subtraction of 4- digit numbers without regrouping

### Exercise-1

a)
| Th | H | T | O |
|---|---|---|---|
| 8 | 7 | 8 | 0 |
| -2 | 0 | 6 | 0 |
| 6 | 7 | 2 | 0 |

c)
| Th | H | T | O |
|---|---|---|---|
| 9 | 8 | 3 | 6 |
| - 5 | 2 | 0 | 4 |
| 4 | 6 | 3 | 2 |

e)
| Th | H | T | O |
|---|---|---|---|
| 4 | 3 | 8 | 6 |
| - | 3 | 7 | 4 |
| 4 | 0 | 1 | 2 |

h)
| Th | H | T | O |
|---|---|---|---|
| 9 | 9 | 9 | 9 |
| -7 | 7 | 7 | 7 |
| 2 | 2 | 2 | 2 |

Word Problem:

k) A cycle costs ₹1085. Ashok has ₹ 850. How much does he need more to buy the cycle?

Solution:

Cost of cycle = ₹ 1 0 8 5
Money with Ashok = - ₹ 8 5 0
More money needed= ₹ 2 3 5
Ans: Ashok needs ₹ 235 more to buy the cycle.

Subtraction of 4-digit numbers with regrouping:

Exercise: 2

a)
| Th | H | T | 0 |
|---|---|---|---|
| 4 | 8 | 1 | 6 |
| -3 | 5 | 0 | 7 |
| 1 | 3 | 0 | 9 |

d)
| Th | H | T | 0 |
|---|---|---|---|
| 7 | 5 | 7 | 0 |
| -4 | 8 | 8 | 0 |
| 2 | 6 | 9 | 0 |

f)
| Th | H | T | 0 |
|---|---|---|---|
| 3 | 1 | 5 | 1 |
| - | 9 | 9 | 9 |
| 2 | 1 | 5 | 2 |

h)
| Th | H | T | 0 |
|---|---|---|---|
| 3 | 2 | 1 | 6 |
| -1 | 8 | 3 | 9 |
| 1 | 3 | 7 | 7 |

Word Problem:

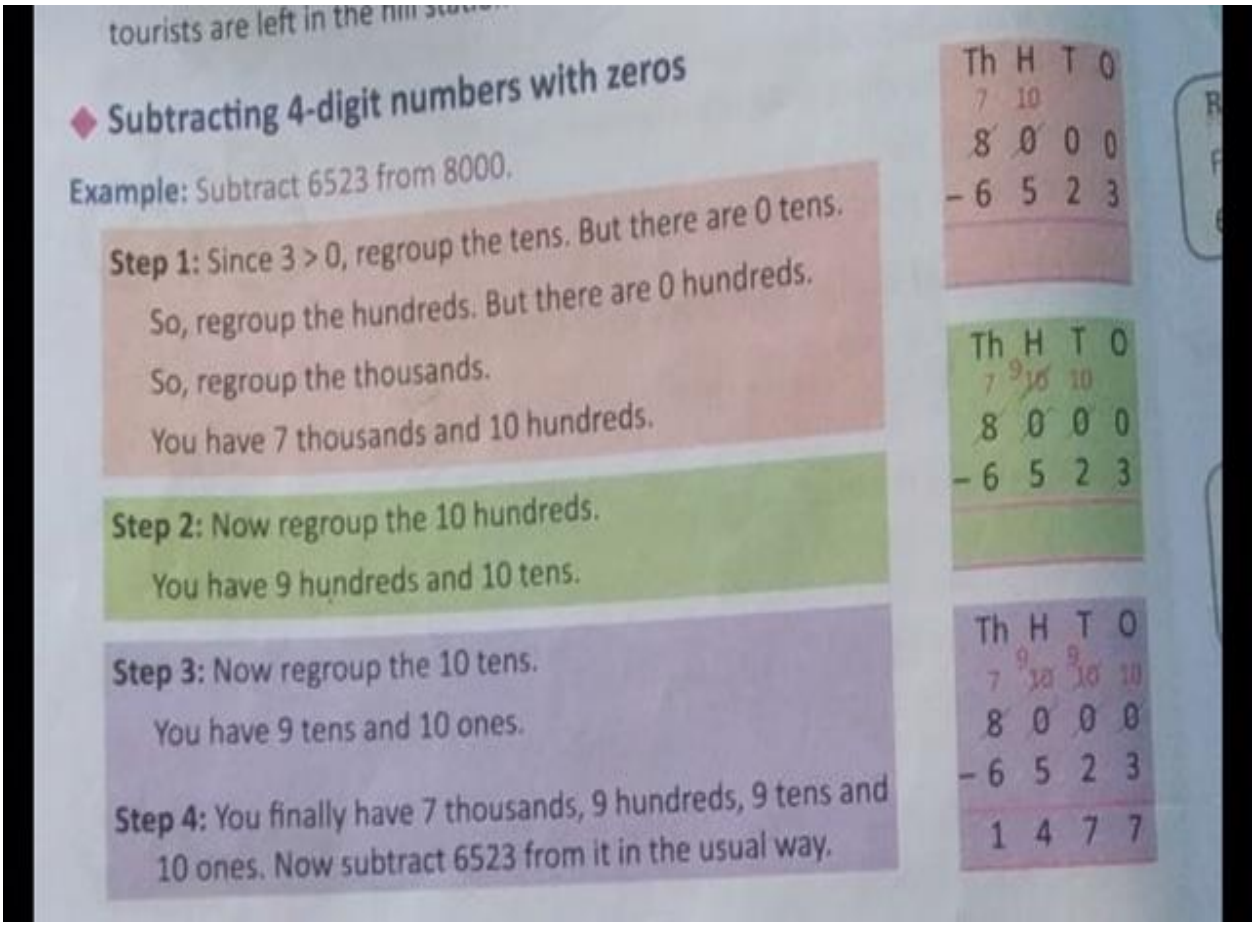
i) There are 3050 houses in a town. 1505 houses are painted red. How many houses are not painted red?

Solution:

| | | |
|---|---|---|
| Total houses in a town are | = | 3 0 5 0 |
| Number of houses painted red | = | (-)1 5 0 5 |
| Number of houses not painted red | = | 1 5 4 5 |

There are 1,545 houses which are not painted red.

## Subtracting 4 digit numbers with zero:



tourists are left in the hill

### Subtracting 4-digit numbers with zeros

**Example:** Subtract 6523 from 8000.

**Step 1:** Since 3 > 0, regroup the tens. But there are 0 tens.
So, regroup the hundreds. But there are 0 hundreds.
So, regroup the thousands.
You have 7 thousands and 10 hundreds.

**Step 2:** Now regroup the 10 hundreds.
You have 9 hundreds and 10 tens.

**Step 3:** Now regroup the 10 tens.
You have 9 tens and 10 ones.

**Step 4:** You finally have 7 thousands, 9 hundreds, 9 tens and 10 ones. Now subtract 6523 from it in the usual way.

| Th | H | T | O |
|---|---|---|---|
| 7 | 10 | | |
| 8 | 0 | 0 | 0 |
| − 6 | 5 | 2 | 3 |

| Th | H | T | O |
|---|---|---|---|
| 7 | 9 | 10 | 10 |
| 8 | 0 | 0 | 0 |
| − 6 | 5 | 2 | 3 |

| Th | H | T | O |
|---|---|---|---|
| 7 | 9 | 9 | 10 |
| 8 | 0 | 0 | 0 |
| − 6 | 5 | 2 | 3 |
| 1 | 4 | 7 | 7 |

---

## Exercise −3

a)

| Th | H | T | O |
|---|---|---|---|
| 6 | 0 | 2 | 0 |
| − 2 | 5 | 1 | 8 |
| 3 | 5 | 0 | 2 |

d)

| Th | H | T | O |
|---|---|---|---|
| 8 | 1 | 0 | 0 |
| − 3 | 2 | 6 | 8 |
| 4 | 8 | 3 | 2 |

f)

| Th | H | T | 0 |
|---|---|---|---|
| 8 | 0 | 0 | 0 |
| – 4 | 3 | 6 | 5 |
| 3 | 6 | 3 | 5 |

h)

| Th | H | T | 0 |
|---|---|---|---|
| 9 | 0 | 1 | 0 |
| – 6 | 3 | 5 | 3 |
| 2 | 6 | 5 | 7 |

**Word Problem**:

j) There are 6000 roses and 356 lilies in a flower shop. How many more roses than lilies are there?

Solution:

Number of roses in a flower shop = 6 0 0 0

Number of lilies in a flower shop = (–) 3 5 6

Number of roses more than lilies are= 5 6 4 4

5644 roses are more than lilies.

**PROPERTIES OF SUBTRACTION**:

a) When a number is subtracted from itself, the difference is always 0.

Example: 6242 – 6242 = 0

4000 – 4000 = 0

b) When 0 is subtracted from a number, the difference is the number itself.

Example: 9204 – 0 = 9204

8888 – 0 = 8888

## COMBINING ADDITION AND SUBTRACTION:

Example : 312 – 413 + 345

Step 1: Add the numbers with +sign before it

```
  3 1 2
+ 3 4 5
  6 5 7  ⇨ Sum
```

Step 2: Now, from the sum subtract the number with the (–) sign before it.

```
  6 5 7
–4 1 3
  2 4 4  ⇨ Difference
```

Ans : 312 – 413 + 345 =244

### Exercise : 4

a) 563 + 214 – 306

**Step1**:

First add the numbers with (+) sign before it.

```
  5 6 3
+ 2 1 4
  7 7 7  ⇨ Sum
```

**Step 2:**

Now from the sum, subtract the number with (–) sign before it .

```
  7 7 7
– 3 0 6
  4 7 1  ⇨ Difference
```

Ans: 563 + 214 – 306 = 471

c) 896 – 223 + 416

Step 1:

First add the numbers with (+) sign before it.

$$\begin{array}{r} 8\,9\,6 \\ +\ 4\,1\,6 \\ \hline 1\,3\,1\,2 \end{array} \Rightarrow \text{Sum}$$

Step 2:

Now from the sum , subtract the number with (–) sign before it.

$$\begin{array}{r} 1\,3\,1\,2 \\ -\ \ 2\,2\,3 \\ \hline 1\,0\,8\,9 \end{array} \Rightarrow \text{Difference}$$

Ans: 896 – 223 + 416 = 1089

Word Problem

(e) Samir had an album with 465 stickers in it. He added 135 new stickers and removed 68 damaged stickers . How many stickers does the album now have?

Solution:

Total number of stickers: 465

New stickers added :(+) 135

Removed damaged stickers: (–) 68

465 + 135 – 68

Step 1: Add the numbers with the (+) sign before it.

$$\begin{array}{r} 4\ 6\ 5 \\ +1\ 3\ 5 \\ \hline 6\ 0\ 0 \end{array}$$

Step 2: Now from the sum, subtract the number with (-) sign before it.

$$\begin{array}{r} 6\ 0\ 0 \\ -\ \ \ 6\ 8 \\ \hline 5\ 3\ 2 \\ \hline \end{array}$$

Therefore, now the album has 532 stickers.

**Relation between addition and subtraction**:

Addition means to put together.

Subtraction means to take away.

Therefore addition and subtraction are opposite of each other.

We can check the answer of addition with the help of subtraction and vice-versa.

Example:

Add the numbers and then check your answer with subtraction:

For Example:

$$\begin{array}{r} \text{Th H T O} \\ 3\ 4\ 5\ 1 \\ +1\ 3\ 2\ 0 \\ \hline 4\ 7\ 7\ 1 \end{array}$$

**Check:**

$$\begin{array}{r} \text{Th H T 0} \\ 4\ 7\ 7\ 1 \\ -1\ 3\ 2\ 0 \\ \hline 3\ 4\ 5\ 1 \end{array} \quad \text{0R} \quad \begin{array}{r} \text{Th H T 0} \\ 4\ 7\ 7\ 1 \\ -\ 3\ 4\ 5\ 1 \\ \hline 1\ 3\ 2\ 0 \end{array}$$

Mental Maths:

a) To subtract 9, first subtract 10 and then add 1,

147 – 9 =

First subtract 10 and then add 1

147-10=137

137+1=138

b) To subtract 8, first subtract 10 and then add 2,

2137-8=

First subtract 10 and then add 2

2137-10=2127

2127+2=2129

Mental Maths :

Q1. Work out mentally:

a) 244-9= 235 e) 8233-8=8225

g) 281-19=262 k) 1636-19=1617

Q2. Work out mentally:

a) 88-8= 80 e)1600-600 =1000

g) 10 less than 881=871

j) 299-100=199

**DELHI PUBLIC SCHOOL, GANDHINAGAR**

**CLASS : 3** **SUBJECT: MATHS**

**Academic Session 2020-21**

# Chapter–4

# Multiplication

## DEFINITION OF MULTIPLICATION

Multiplication means to add equal groups. In other words multiplication is repeated addition**.**

For example,

$6 \times 9 = 54$

The numbers 6 and 9 are the factors, while the number 54 is the product.

### Check what you know

Q1 Write the multiplication facts:

a) 4 groups of 3 cherries each=4 x 3 = 12
b) 2 rows of 5 flowers each= 2 x 5 = 10
c) 4 +4 +4 +4 + 4+ 4+ 4+ 4 =32
d) 4 groups of 3 coins each = 4 x 3 = 12
e) 8 fours= 8 x 4 = 32

Q2 Learn the tables: 2-12

3. Multiply:

a)
$$\begin{array}{r} 22 \\ \times\ 3 \\ \hline 66 \end{array}$$

b)
$$\begin{array}{r} 33 \\ \times\ 2 \\ \hline 66 \end{array}$$

e)
$$\begin{array}{r} 63 \\ \times\ 6 \\ \hline 378 \end{array}$$

f)
$$\begin{array}{r} 57 \\ \times\ 4 \\ \hline 228 \end{array}$$

### Word Problem

Q4 a) A mustard flower has 4 petals. How many petals do 7 mustard flowers have ?

**Solution:**

Number of petals on 1 flower = 4
Number of petals on 7 flower = 4x7
=28

Therefore, there are 28 petals on 7 mustard flowers.

**Exercise -1**

Q2. Multiply using the tables:

a) 6×8=48
b) 5×7=35
c) 6×9=54
d) 3×8=24
e) 4×6=24
f) 7×7=49
n) 7×10=70

Q3. An octopus has 8 legs. How many legs do 9 octopuses have?

**Solution:**

Number of legs in 1 octopus = 8
Number of legs in 9 octopuses= 8 × 9
= 72

Therefore, 9 octopuses will have 72 legs.

d) A tailor stitches 9 buttons on a shirt. How many buttons will he need for 6 shirts?

**Solution:**

Number of buttons on 1 shirt =9
Number of buttons on 6 shirts = 9×6
=54

Therefore, he will need 54 buttons on 6 shirts.

**Multiply a 3-digit number by a 1-digit number without regrouping**

**Exercise -2**

a)
$$\begin{array}{r} 1\ 3\ 2 \\ \times\ 3 \\ \hline 3\ 9\ 6 \end{array}$$

c)
$$\begin{array}{r} 1\ 1\ 0 \\ \times\ 5 \\ \hline 5\ 5\ 0 \end{array}$$

e) 1 0 1
× 6
6 0 6

## Multiply with regrouping
## Exercise: 3

Q1. Multiply ( regroup once):

a) 3 0 4
× 3
9 1 2

d) 1 6 0
× 9
1 4 4 0

Q2. Multiply (regroup twice):

a) 2 8 4
× 3
8 5 2

d) 1 4 6
× 6
8 7 6

g) 1 9 4
× 6
1 1 6 4

j) 5 2 0
× 8
4 1 6 0

**Q 3. Solve**:

a) The price of one maths book is Rs. 275. What is the price of 5 maths books?

**Solution:**

Price of 1 maths book = 2 7 5
Price of 5 maths book = 275 × 5

2 7 5
× 5
1 3 7 5

Therefore, price of 5 maths books is Rs. 1375.

## Multiplying by tens and hundreds

### Exercise -4

Q1. Multiply:

a) $6 \times 10 = 60$

d) $80 \times 4 = 320$

h) $9 \times 400 = 3600$

j) $405 \times 10 = 4050$

l) $100 \times 21 = 2100$

### Exercise :5 Multiply

a)
```
  4 2
x 2 2
  8 4
+8 4 0
 9 2 4
```

b)
```
  2 3
x 1 3
  6 9
+2 3 0
 2 9 9
```

c)
```
  3 3
x 1 2
  6 6
+3 3 0
 3 9 6
```

## Multiplying with regrouping

### Exercise 6: Multiply

a)
```
  3 7
x2 4
 1 4 8
+7 4 0
 8 8 8
```

b)
```
  4 3
x 2 4
 1 7 2
+8 6 0
1 0 3 2
```

c)
```
  5 2
x 1 3
 1 5 6
+5 2 0
 6 7 6
```

d)
```
  6 3
x 3 3
 1 8 9
+1 8 9 0
2 0 7 9
```

e) 4 5
x 2 8
3 6 0
+9 0 0
1 2 6 0

f) 2 6
x 5 4
1 0 4
+13 0 0
14 0 4

## Mental Maths:

Q1. Use the 11 –times table to multiply:

a) 5 × 11 = 55
b) 9 × 11 = 99
c) 10 x 11 = 110
d) 6 × 11 = 66

Q 2. Multiply mentally and fill in the blanks:

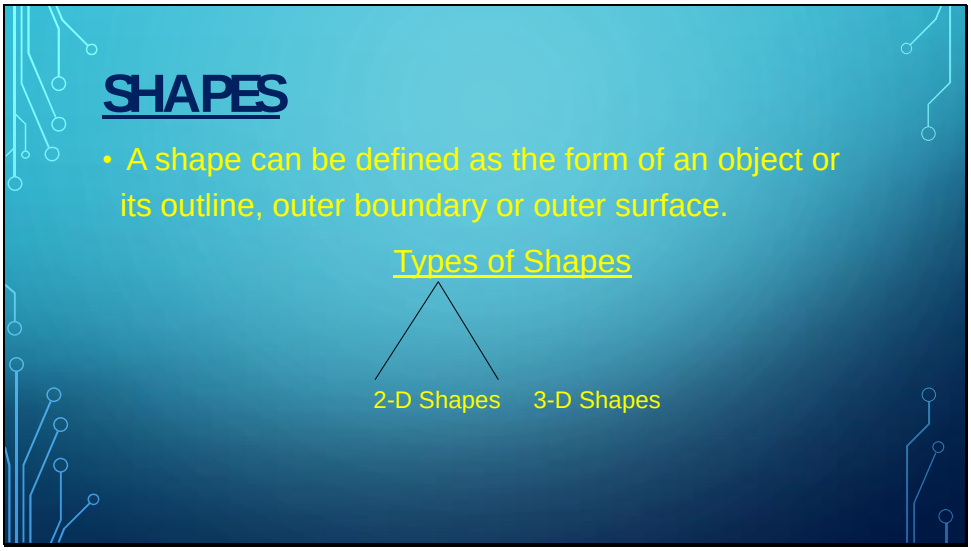
a) 30 × 7 = 210

b) 40 x 10 = 400
c) 900 x 10 = 9000
d) 36 x 100 = 3600
e) 10 x 57 = 570
f) 200 x 11 = 2200
g) 93 x 0 = 0
h) 37 x 1= 37
i) 8 x 800 = 6400
j) 156 x 10 = 1560
k) 6 x 7 = 42
l) 40 x 20 = 800

**DELHI PUBLIC SCHOOL, GANDHINAGAR**

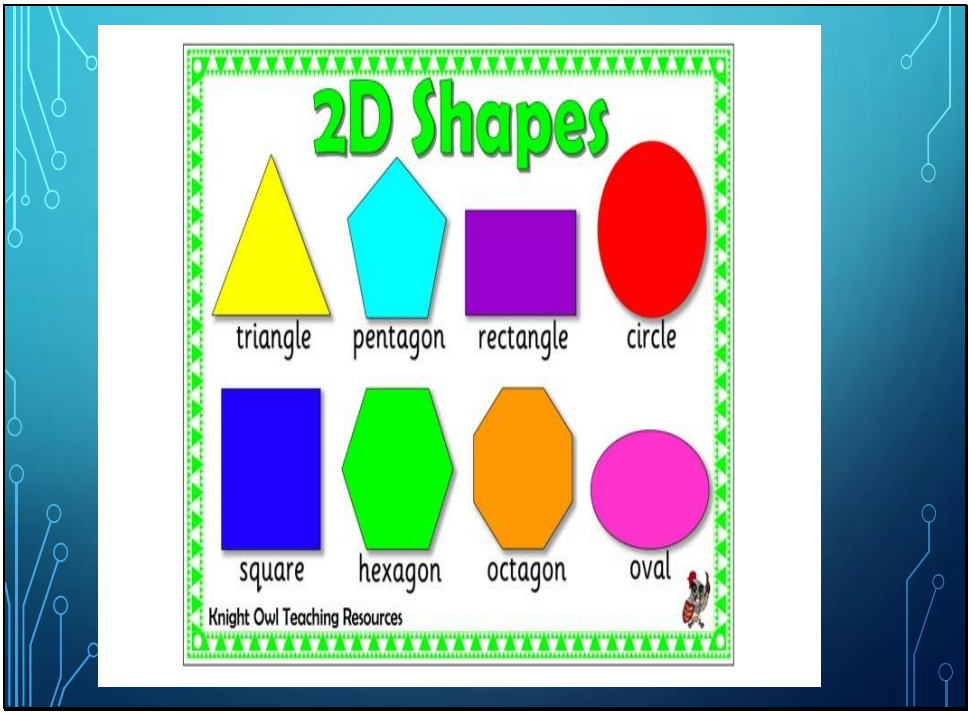
**CLASS: 3** **SUBJECT: MATHS**

**Academic Session 2020-21**



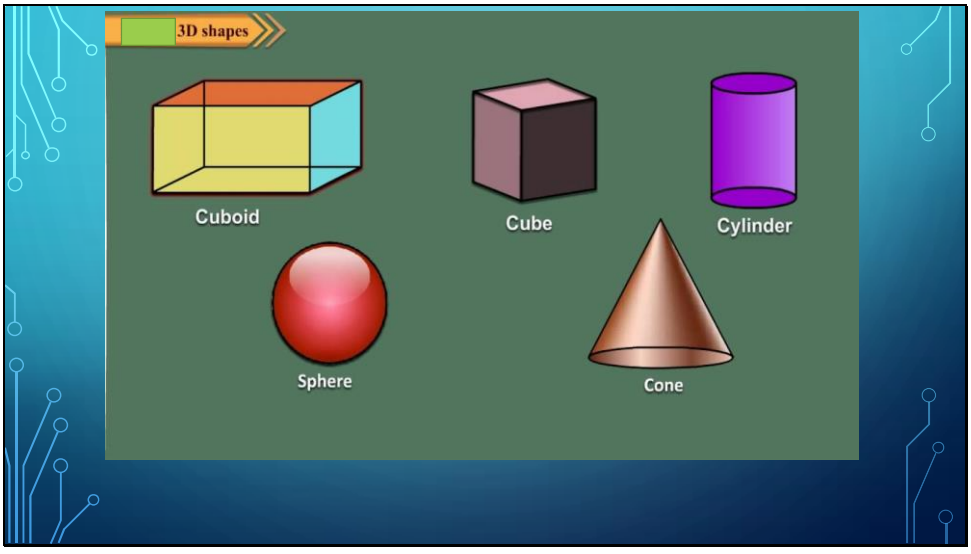
## DEFINITION OF 2-D SHAPES

- A **2D shape** or a two-dimensional shape can be defined as a flat plane figure or a shape that has two dimensions – length and width.
- Two-dimensional or 2-D shapes do not have any thickness and can be measured in only two faces.



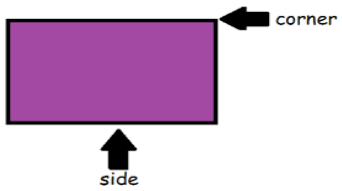
## DEFINITION OF 3-D SHAPES

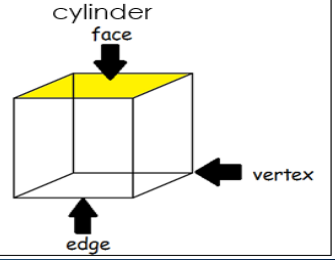
3D shapes are known as **three-dimensional shapes or solids**. 3D shapes have three different measures such as length, width, and height as its dimensions. They occupy space. The only difference between 2D shape and 3D shapes is that 3D shapes have a thickness or depth.

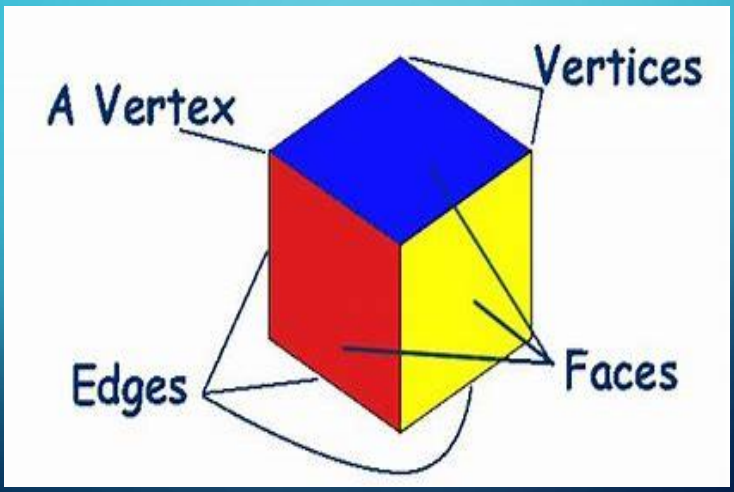


**Let's take a look at the difference between 2D shapes and 3D shapes:**

| 2D Shapes | 3D Shapes |
| --- | --- |
| - are flat<br>- corners<br>- sides<br>- ex. Circle, square, rhombus | - are not flat<br>- vertices or 1 vertex<br>- edges<br>- faces<br>- ex. Sphere, cone, cylinder |



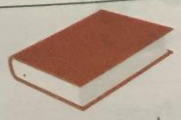



# EXERCISE-1

## EXERCISE 1

**1. What shapes do these objects have? Count and write the number of faces, edges and corners each has.**

a)



| | |
|---|---|
| Shape: | Cuboid |
| Straight faces: | 6 |
| Curved faces: | 0 |
| Straight edges: | 12 |
| Curved edges: | 0 |
| Corners: | 8 |

b)

| | |
|---|---|
| Shape: | Cone |
| Straight faces: | 0 |
| Curved faces: | 1 |
| Straight edges: | 0 |
| Curved edges: | 1 |
| Corners: | 1 |

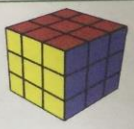
c)

| | |
|---|---|
| Shape: | Sphere |
| Straight faces: | 0 |
| Curved faces: | 1 |
| Straight edges: | 0 |
| Curved edges: | 0 |
| Corners: | 0 |

d)

| | |
|---|---|
| Shape: | Cylinder |
| Straight faces: | 2 |
| Curved faces: | 1 |
| Straight edges: | 0 |
| Curved edges: | 2 |
| Corners: | 0 |

e)



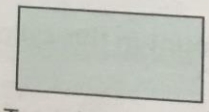
| | |
|---|---|
| Shape: | cube |
| Straight faces: | 6 |
| Curved faces: | 0 |
| Straight edges: | 12 |
| Curved edges: | 0 |
| Corners: | 8 |

f)

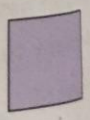
| | |
|---|---|
| Shape: | Sphere |
| Straight faces: | 0 |
| Curved faces: | 1 |
| Straight edges: | 0 |
| Curved edges: | 0 |
| Corners: | 0 |

**2. Which solid shape do these flat shapes belong to?**

a) Top of a cylinder



b) Top of a cuboid



c) Top of a cube

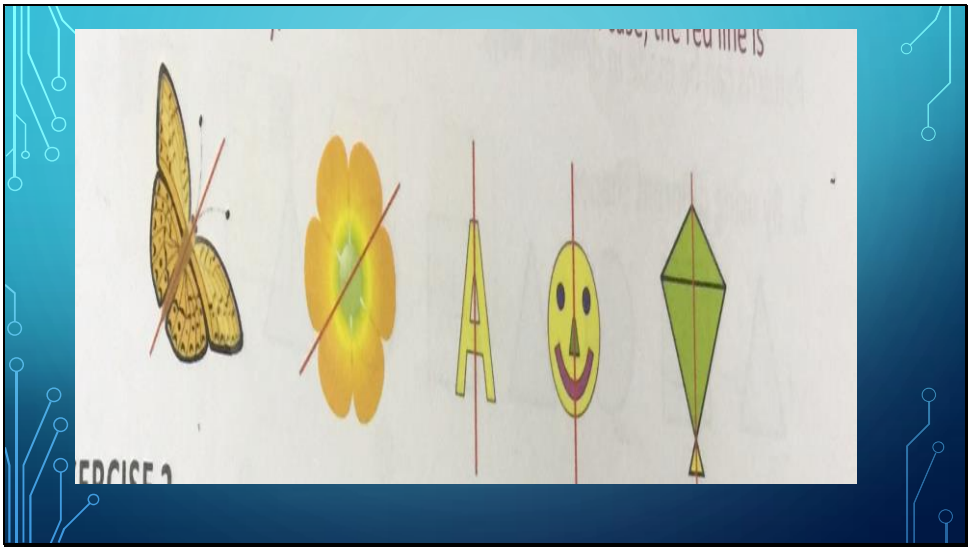
d) Which solid shape looks like from the bottom and from the side?

e) Which solid shape looks like when seen from the top, bottom or from any side? Sphere

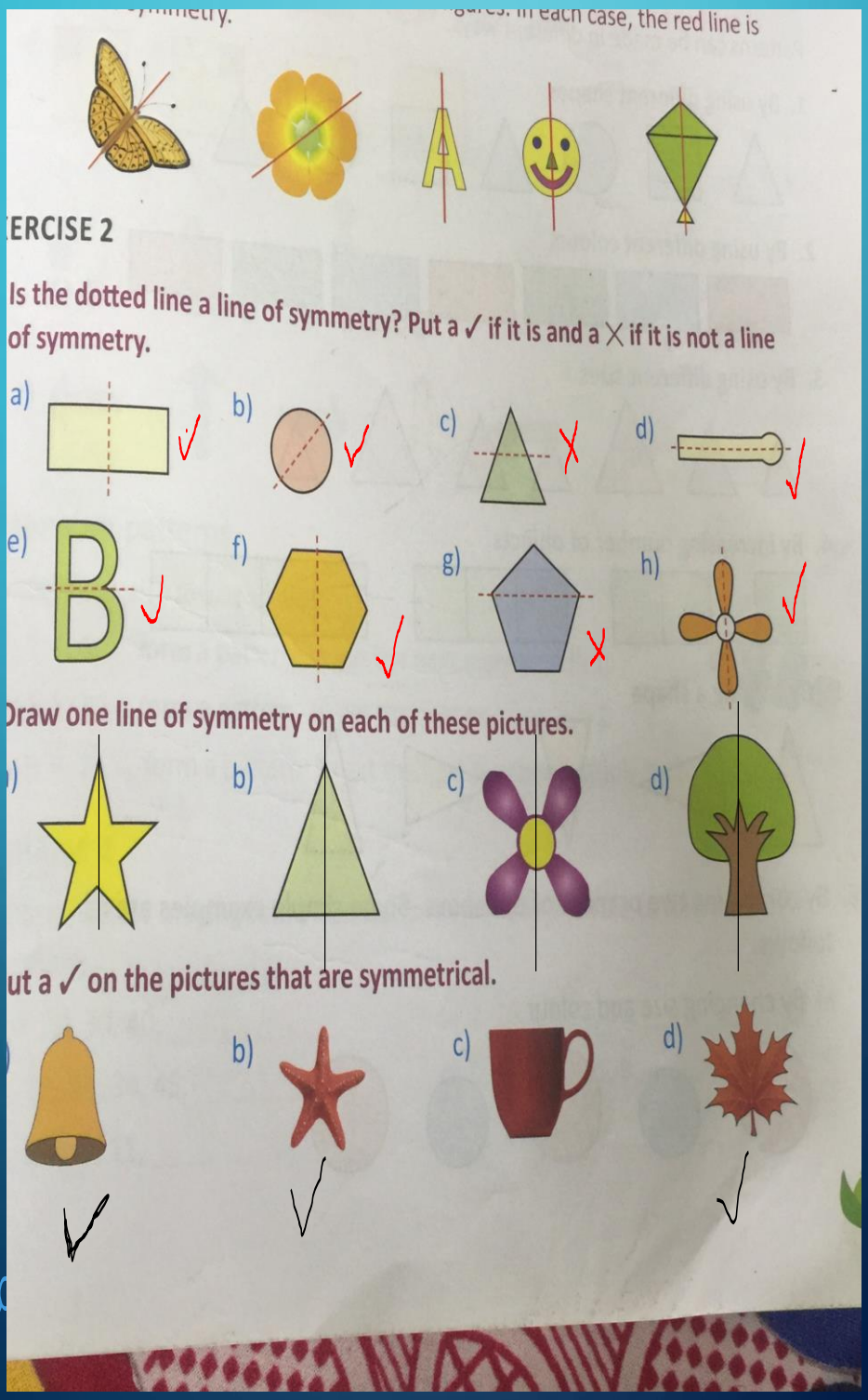
# SYMMETRY

- The line that divides a symmetrical figure into two parts that are exactly the same is called the line of symmetry.

Example



# EXERCISE - 2



symmetry. ...gures. In each case, the red line is

ERCISE 2

Is the dotted line a line of symmetry? Put a ✓ if it is and a ✕ if it is not a line of symmetry.

a) b) c) d)

e) f) g) h)

Draw one line of symmetry on each of these pictures.

a) b) c) d)

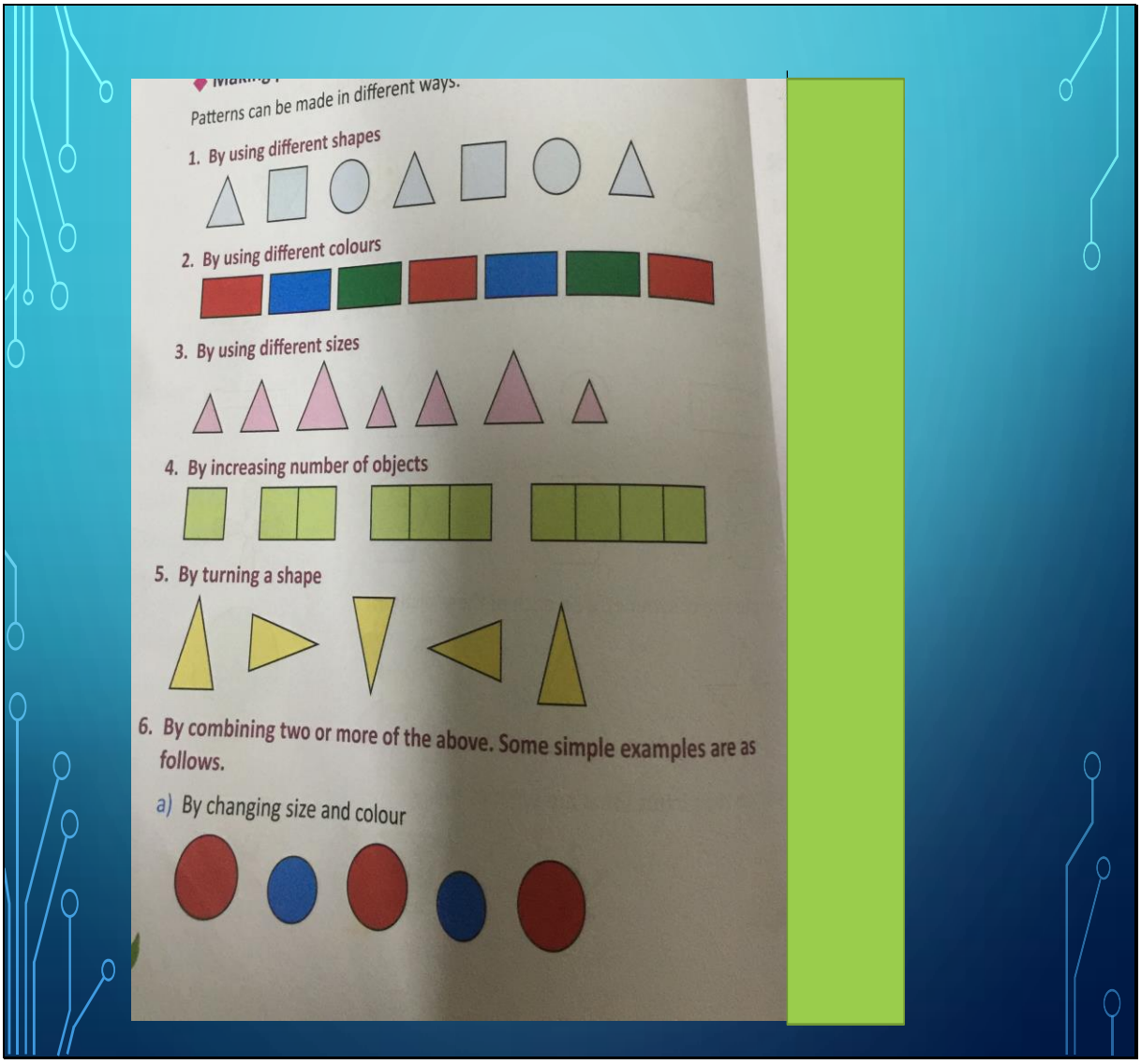
ut a ✓ on the pictures that are symmetrical.

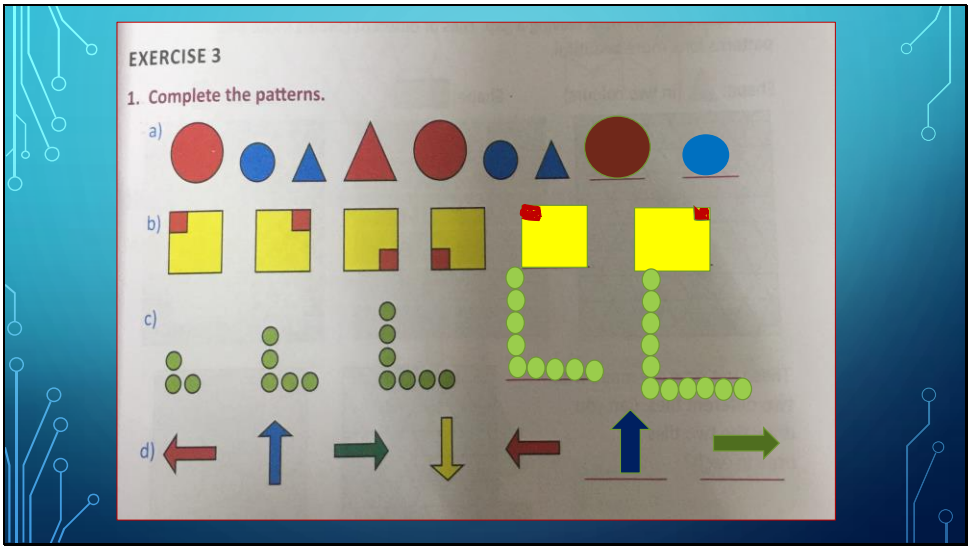
b) c) d)

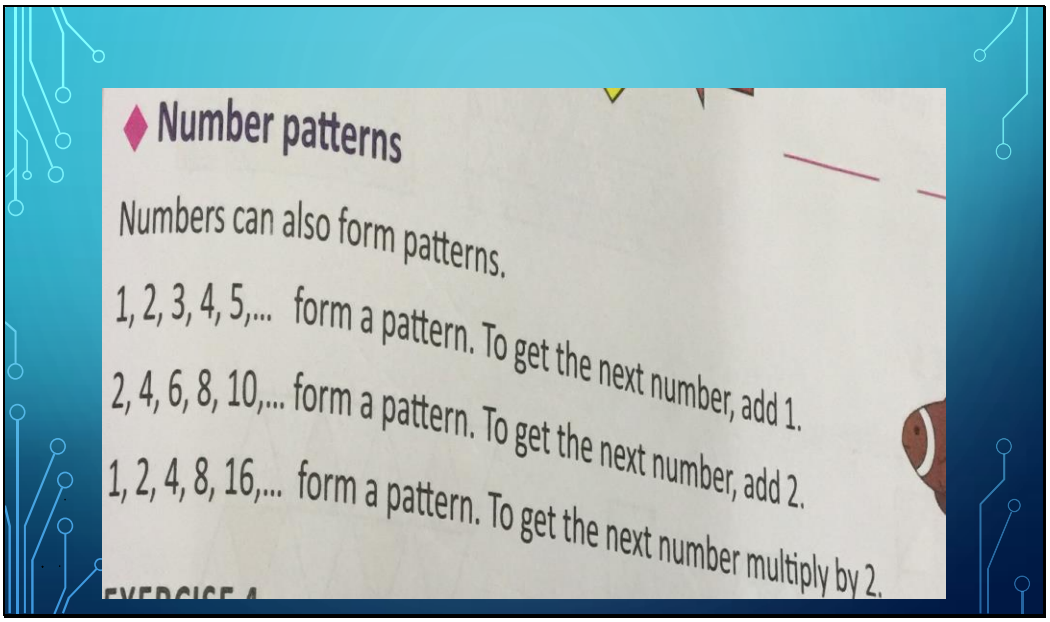
# PATTERNS

Repeating shapes make a pattern.

Patterns make things look beautiful.




EXERCISE 3
1. Complete the patterns.
a)
b)
c)
d)


Number patterns
Numbers can also form patterns.
1, 2, 3, 4, 5,... form a pattern. To get the next number, add 1.
2, 4, 6, 8, 10,... form a pattern. To get the next number, add 2.
1, 2, 4, 8, 16,... form a pattern. To get the next number multiply by 2.

## EXERCISE 4

Find the rule for making these number patterns. Use the rule to find the next 3 numbers.

a) 10, 20, 30, 40, 50, 60, 70

b) 3, 10, 17, 24, 31, 38, 45, 52

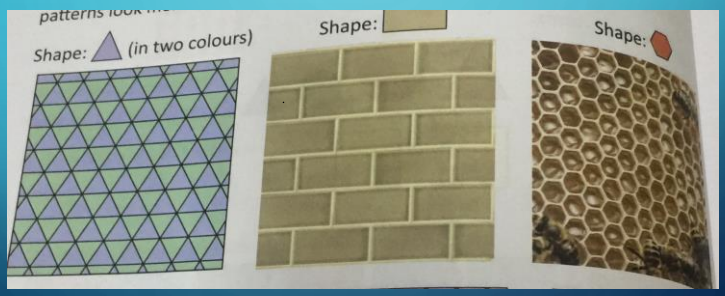
c) 1, 12, 23, 34, 45, 56, 67, 78

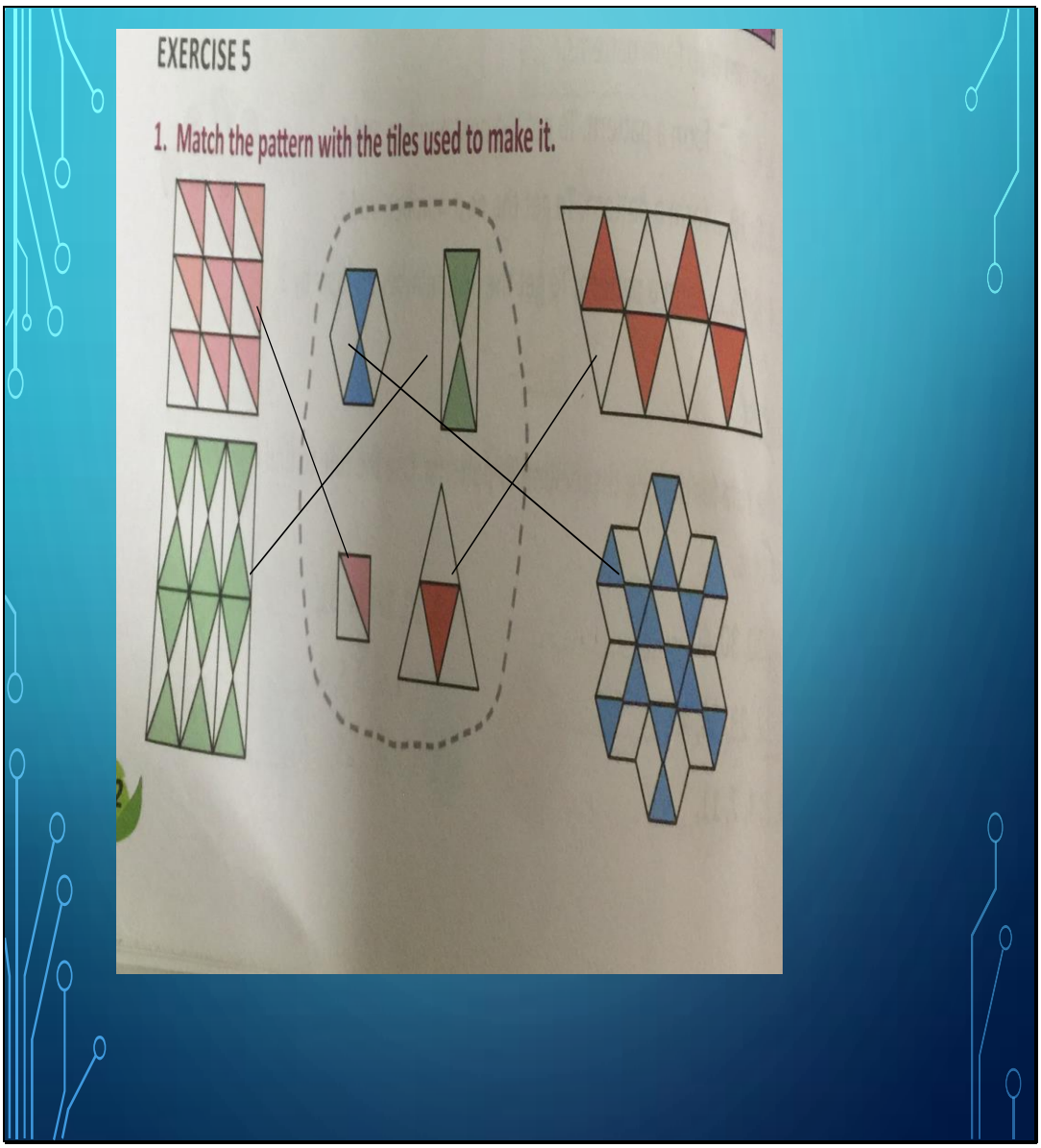
d) 0, 1, 1, 2, 3, 5, 8, 13, 21, 34

e) 1, 2, 4, 7, 11, 16, 22, 29

f) 1, 3, 6, 10, 15, 21, 28, 36

## TILING PATTERNS

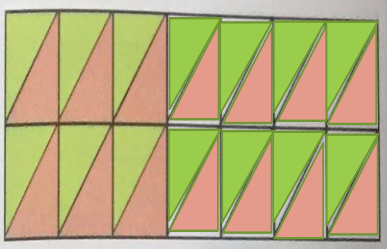



EXERCISE 5
1. Match the pattern with the tiles used to make it.

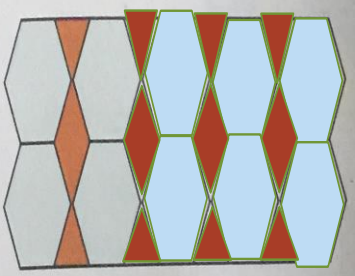
# CONTINUED

2. Colour to complete the tiling patterns.

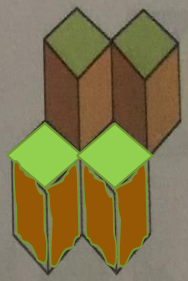
a)



b)



c)



## SKILLS SECTION (calculation, application and analysing skills)

### Mixed Bag

1. Match the solid shapes to their properties.

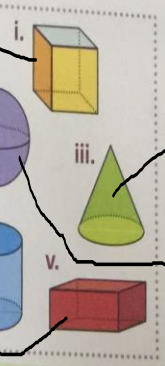
a) 6 flat faces, 12 edges, 8 corners; all edges are equal

b) 1 flat face, 1 curved face, 1 curved edge, 1 corner

c) 6 flat faces, 12 edges, 8 corners; opposite edges are equal

d) 0 flat faces, 1 curved face, 0 edges, 0 corners

e) 2 flat faces, 1 curved face, 2 curved edges, 0 corners




2. Put a ✓ on shapes that can be used to tile.

a) ✓

b) ✗

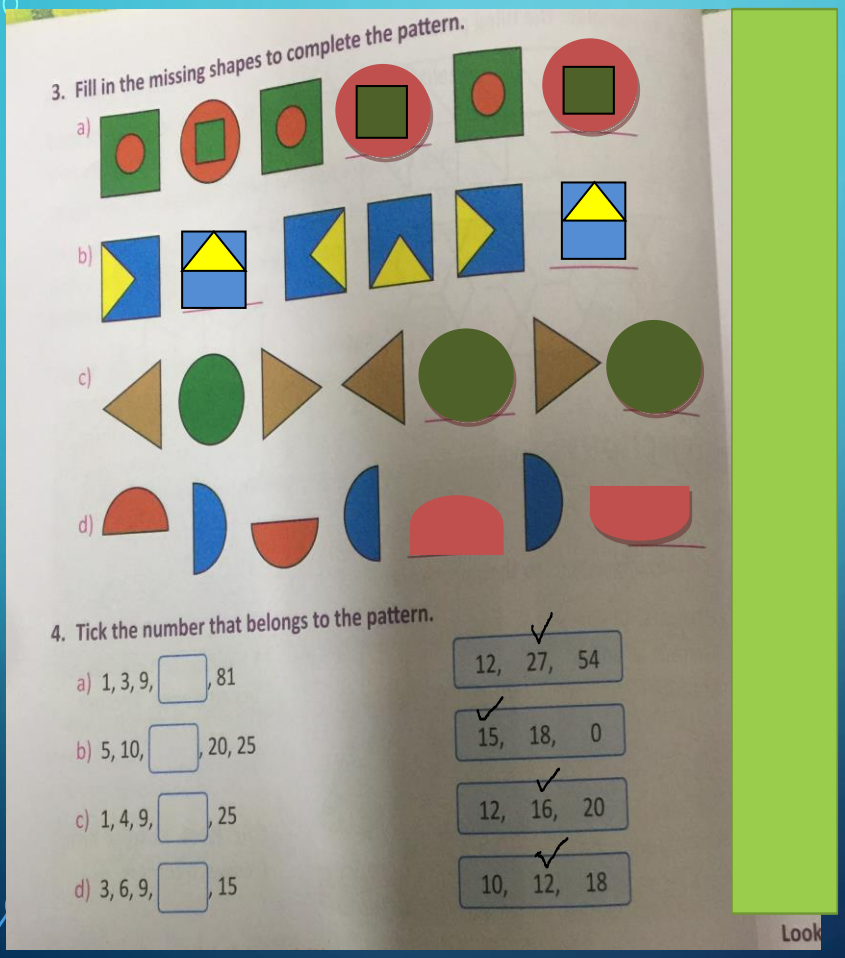
c) ✓

d) ✗

e) ✓

f) ✓

# CONTINUED



3. Fill in the missing shapes to complete the pattern.

a)

b)

c)

d)

4. Tick the number that belongs to the pattern.

a) 1, 3, 9, ☐, 81

b) 5, 10, ☐, 20, 25

c) 1, 4, 9, ☐, 25

d) 3, 6, 9, ☐, 15

✓ 12, 27, 54

✓ 15, 18, 0

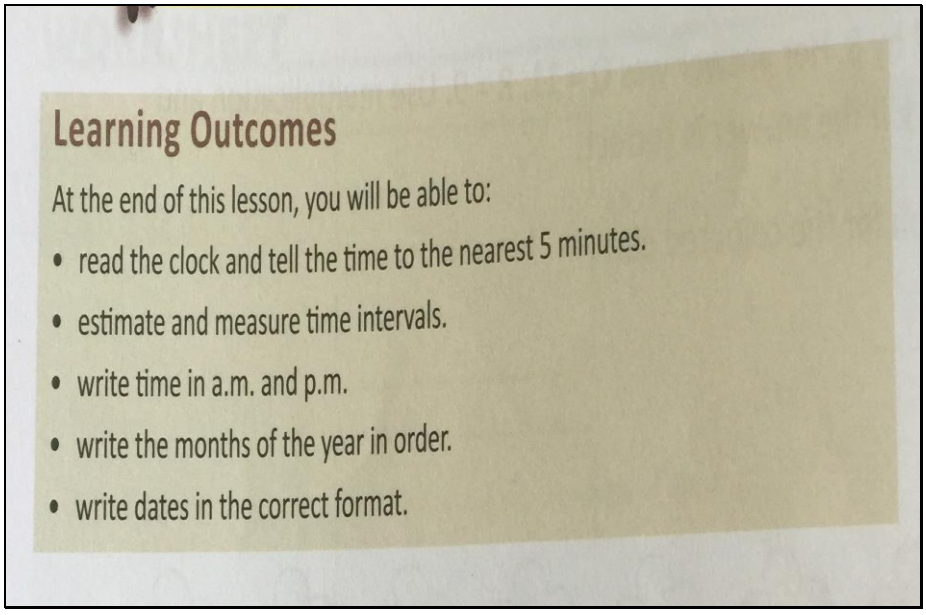
✓ 12, 16, 20

✓ 10, 12, 18

Look

---

# Chapter:10
# Time



## Define Time:

**Time** is the ongoing sequence of events taking place. The past, present and future. The basic unit of **time** is the second. There are also minutes, hours, days, weeks, months and years. We can measure **time** using clocks.

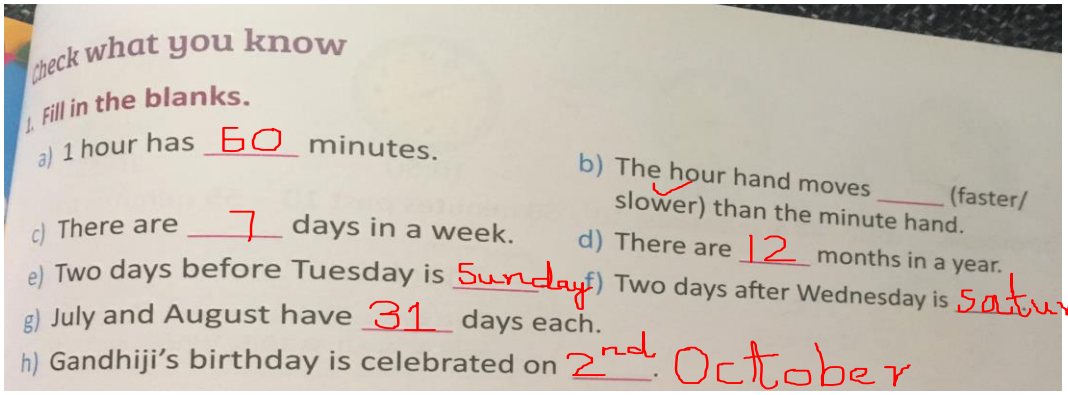
## Terms used in Time:

1) The short hand in the clock is called Hour hand .

2) The long hand of the clock is called minute hand.

3) The difference between two consecutive numbers in the clock is equal to 5 minutes.

# Check what you know



Check what you know

1. Fill in the blanks.

a) 1 hour has 60 minutes.

b) The hour hand moves _____ (faster/ slower) than the minute hand.

c) There are 7 days in a week.

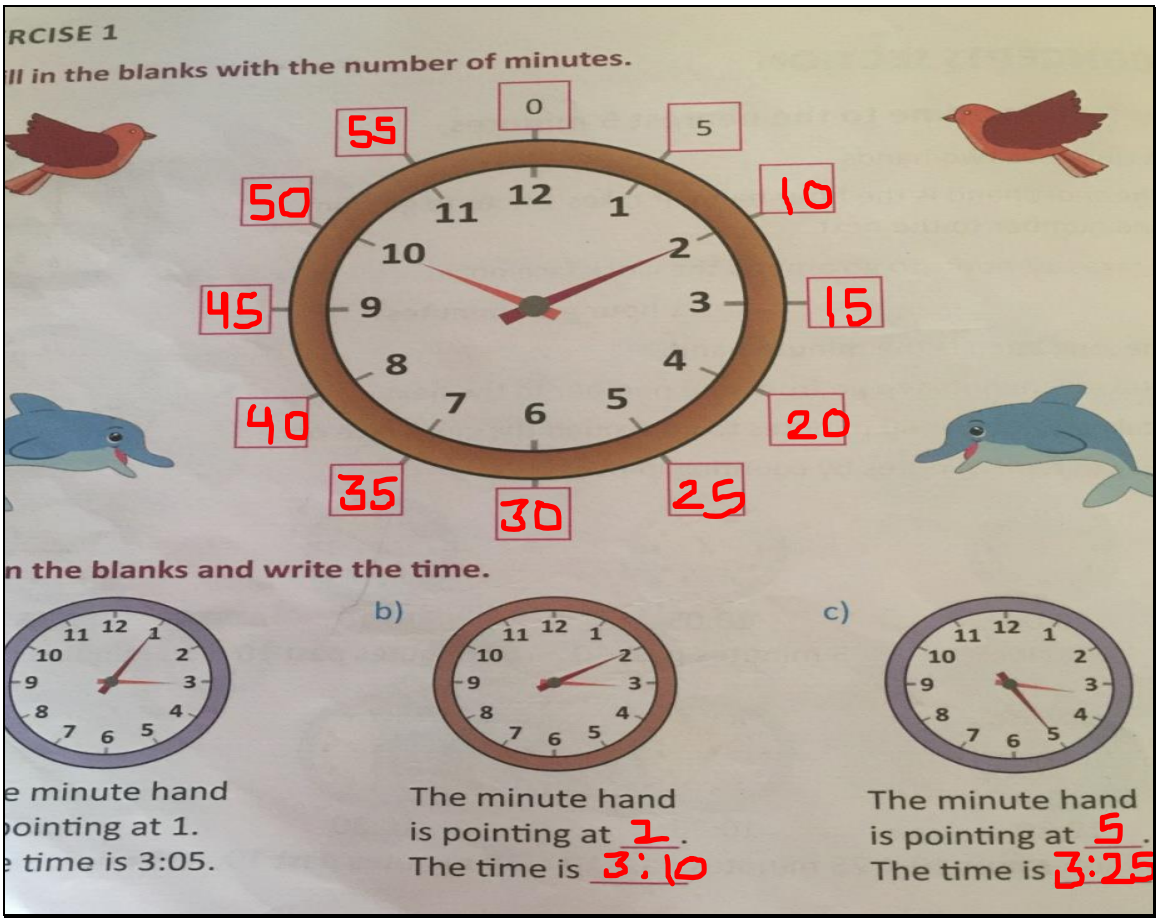
d) There are 12 months in a year.

e) Two days before Tuesday is Sunday.

f) Two days after Wednesday is Saturday.

g) July and August have 31 days each.

h) Gandhiji's birthday is celebrated on 2nd October.



RCISE 1

ll in the blanks with the number of minutes.

0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55

n the blanks and write the time.

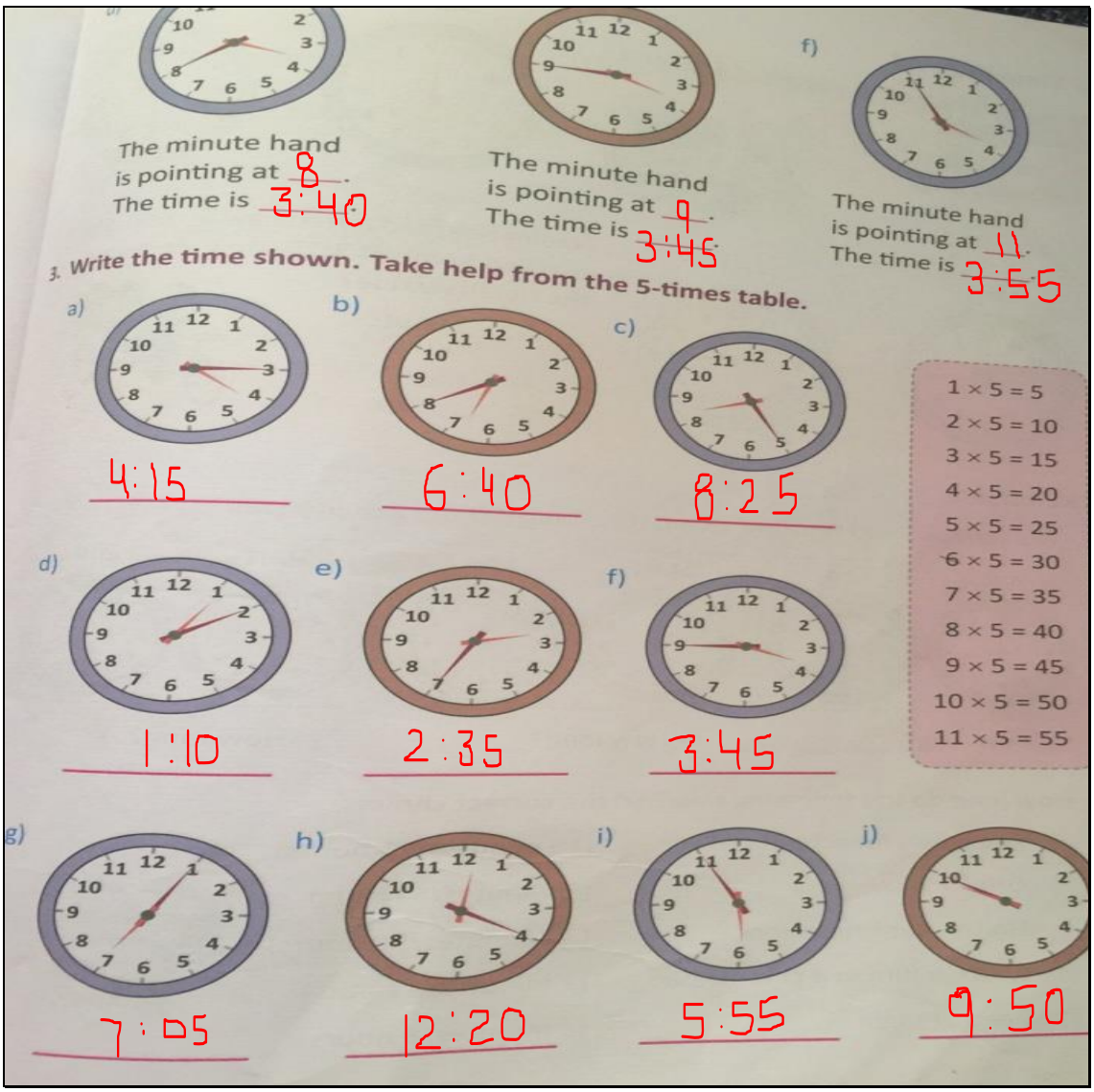
e minute hand
ointing at 1.
e time is 3:05.

b)

The minute hand is pointing at 2.
The time is 3:10

c)

The minute hand is pointing at 5.
The time is 3:25



The minute hand is pointing at 8.
The time is 3:40

The minute hand is pointing at 9.
The time is 3:45

f)

The minute hand is pointing at 11.
The time is 3:55

3. Write the time shown. Take help from the 5-times table.

a) 4:15

b) 6:40

c) 8:25

d) 1:10

e) 2:35

f) 3:45

g) 7:05

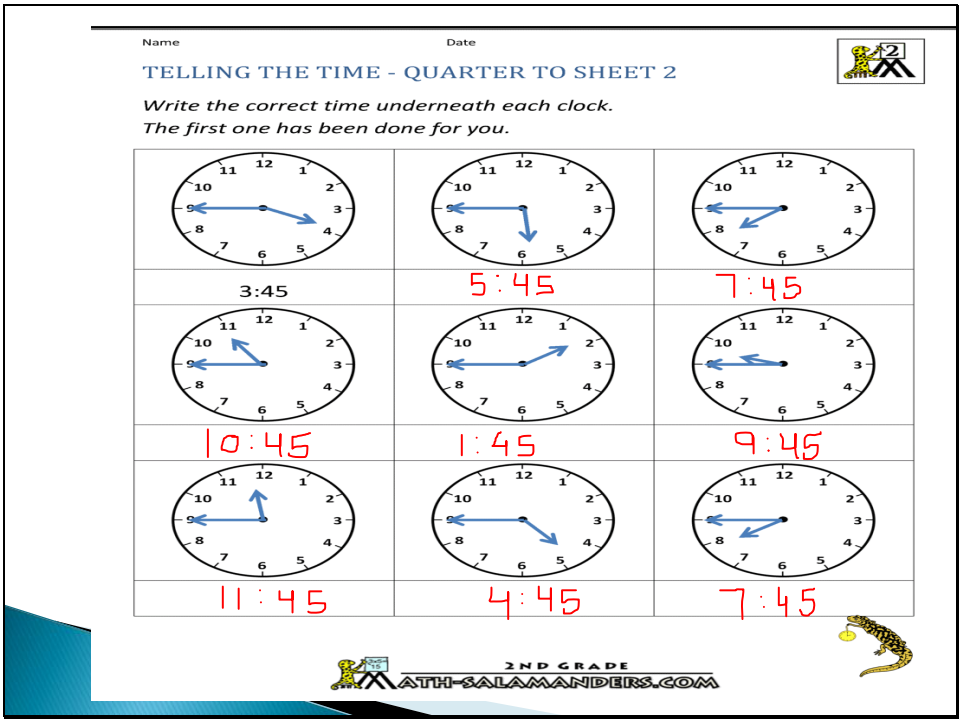
h) 12:20

i) 5:55

j) 9:50

$1 \times 5 = 5$
$2 \times 5 = 10$
$3 \times 5 = 15$
$4 \times 5 = 20$
$5 \times 5 = 25$
$6 \times 5 = 30$
$7 \times 5 = 35$
$8 \times 5 = 40$
$9 \times 5 = 45$
$10 \times 5 = 50$
$11 \times 5 = 55$

# Practice Worksheet



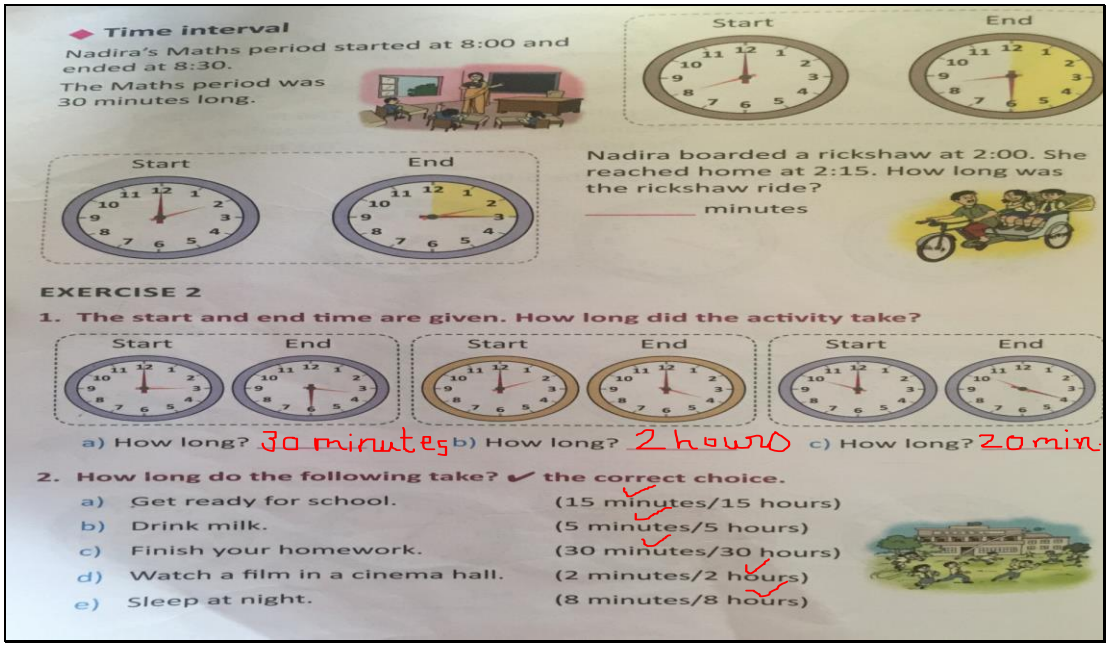
Name Date

TELLING THE TIME - QUARTER TO SHEET 2

*Write the correct time underneath each clock.*
*The first one has been done for you.*

| | | |
|---|---|---|
| 3:45 | 5:45 | 7:45 |
| 10:45 | 1:45 | 9:45 |
| 11:45 | 4:45 | 7:45 |

2ND GRADE MATH-SALAMANDERS.COM



**Time interval**

Nadira's Maths period started at 8:00 and ended at 8:30.
The Maths period was 30 minutes long.

Start End

Start End

Nadira boarded a rickshaw at 2:00. She reached home at 2:15. How long was the rickshaw ride?
_____ minutes

**EXERCISE 2**

1. The start and end time are given. How long did the activity take?

Start End Start End Start End

a) How long? 30 minutes b) How long? 2 hours c) How long? 20 min

2. How long do the following take? ✔ the correct choice.

a) Get ready for school. (15 minutes/15 hours)
b) Drink milk. (5 minutes/5 hours)
c) Finish your homework. (30 minutes/30 hours)
d) Watch a film in a cinema hall. (2 minutes/2 hours)
e) Sleep at night. (8 minutes/8 hours)

## Exercise :3

Q1. What is the time?

a) 1hour after 8:00 =
8:00 + 1 hour = 9:00

b) 1 hour before 4:30=
4:30 – 1:00 hour= 3:30

c) 2 hour after 2:10=
2:10 + 2 hour= 4:10

d) 2 hours before 5:00 ?
5:00 – 2 hours = 3:00

e) 30 minutes before 12:00 ?
12:00 –30 minutes=
( 1 hour = 60 minutes)
11:60
– :30
11:30

f) 30 minutes before 9:30?
9:30 – 30 minutes=9:00

Q3 Aditi's flight from Delhi to London will take off from Delhi airport at 11:15. Since it is an international flight, she has to report at the airport 3 hours before the departure time. At what time should she reach the airport?

Solution:

Time of flight to take off = 11:15

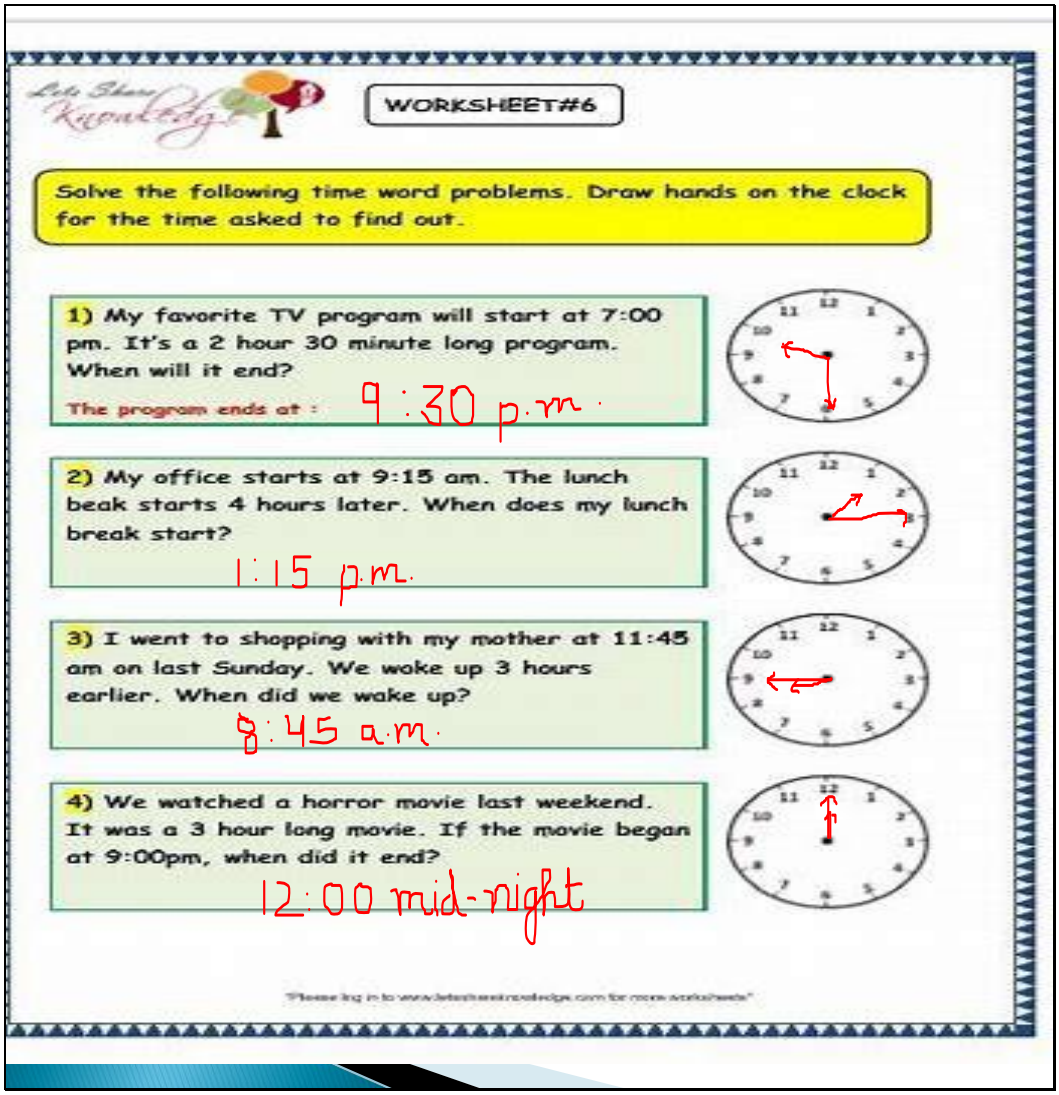
Reporting time before =3 hours

Time she should reach the airport=?

11:15 +3 hours= 8:15

She should reach the airport at 8:15

# Worksheet



WORKSHEET#6

Solve the following time word problems. Draw hands on the clock for the time asked to find out.

1) My favorite TV program will start at 7:00 pm. It's a 2 hour 30 minute long program. When will it end?

The program ends at : 9:30 p.m.

2) My office starts at 9:15 am. The lunch beak starts 4 hours later. When does my lunch break start?

1:15 p.m.

3) I went to shopping with my mother at 11:45 am on last Sunday. We woke up 3 hours earlier. When did we wake up?

8:45 a.m.

4) We watched a horror movie last weekend. It was a 3 hour long movie. If the movie began at 9:00pm, when did it end?

12:00 mid-night

# Use of a.m. and p.m.

If I say it is 9:00, how will you know if it is 9:00 in the morning or 9:00 at night? is why we use a.m. and p.m.

Ishaan gets up at 6:00 in the morning.

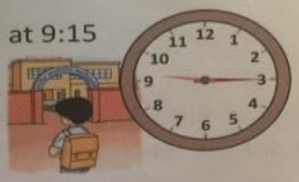
He gets up at **6 a.m.**

He has breakfast at 8:30 in the morning.

He has breakfast at **8:30 a.m.**

He reaches school at 9:15 in the morning.

He reaches school at **9:15 a.m.**



He has lunch in school at 12:00.

He has lunch at **12 noon.**

He returns home at 2:30 in the afternoon.

He returns home at **2:30 p.m.**

He goes to play at 4:20 in the afternoon.

He goes to play at **4:20 p.m.**

He goes to sleep at 9:10 at night.

He goes to sleep at **9:10 p.m.**

It is **12:00 midnight.** Ishaan is sleeping.

It is 4:25 in the morning. It is **4:25 a.m.**

Ishaan is still sleeping.

We write **a.m.** for time from 12:00 midnight to 12:00 noon.

We write **p.m.** for time from 12:00 noon to 12:00 midnight.

**EXERCISE 4**

1. **Write the time using a.m. and p.m.**

a) 9:00 morning: 9:00 a.m.

b) 5:30 morning: 5:30 a.m

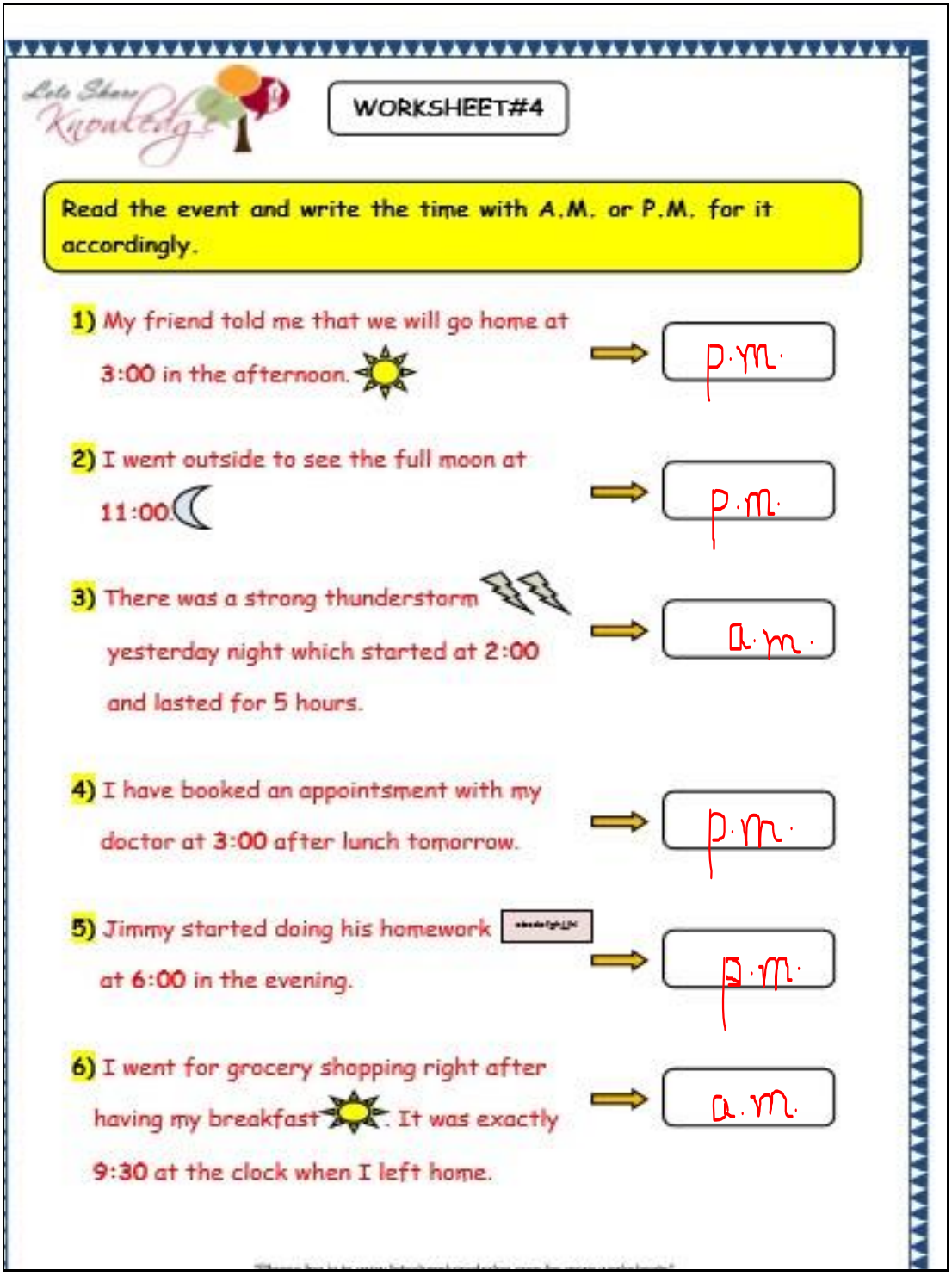
c) 7:15 evening: 7:15 p.m.

d) 11:55 night: 11:55 p.m.

e) 2:10 night: 2:10 a.m.

f) 12:10 night: 12:10 a.m.

# Worksheet



Let's Share Knowledge

WORKSHEET#4

Read the event and write the time with A.M. or P.M. for it accordingly.

1) My friend told me that we will go home at 3:00 in the afternoon. → p.m.

2) I went outside to see the full moon at 11:00. → p.m.

3) There was a strong thunderstorm yesterday night which started at 2:00 and lasted for 5 hours. → a.m.

4) I have booked an appointsment with my doctor at 3:00 after lunch tomorrow. → p.m.

5) Jimmy started doing his homework at 6:00 in the evening. → p.m.

6) I went for grocery shopping right after having my breakfast. It was exactly 9:30 at the clock when I left home. → a.m.

To find if a particular year is a leap year divide the last 2 digits of the year by 4.

- If it is divisible without a remainder, it is a leap year, e.g. 2004, 2028.
- If the division leaves a remainder, it is not a leap year, e.g. 2005, 2030.
- If the last two digits are 00, remove the 00 and divide the remaining number by 4. If there is no remainder it is a leap year. If there is a remainder it is not a leap year.

2000 was a leap year since 20 is divisible by 4. 1900 was not a leap year since 19 is not divisible by 4. 2100 will not be a leap year.

**Put a ✓ on the leap years.**

| 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|

**XERCISE 5**

**Will you measure the time in hours, days, weeks, months or years? Put a ✓ on the right choice.**

a) Time you spend in school in a day. (hours/weeks)
b) Growing up from a child to an adult. (months/years)
c) Summer vacations. (hours/months)
d) Doing daily homework. (hours/weeks)
e) For a building to be constructed. (weeks/months)
f) Growth of a small plant into a tree. (weeks/years)

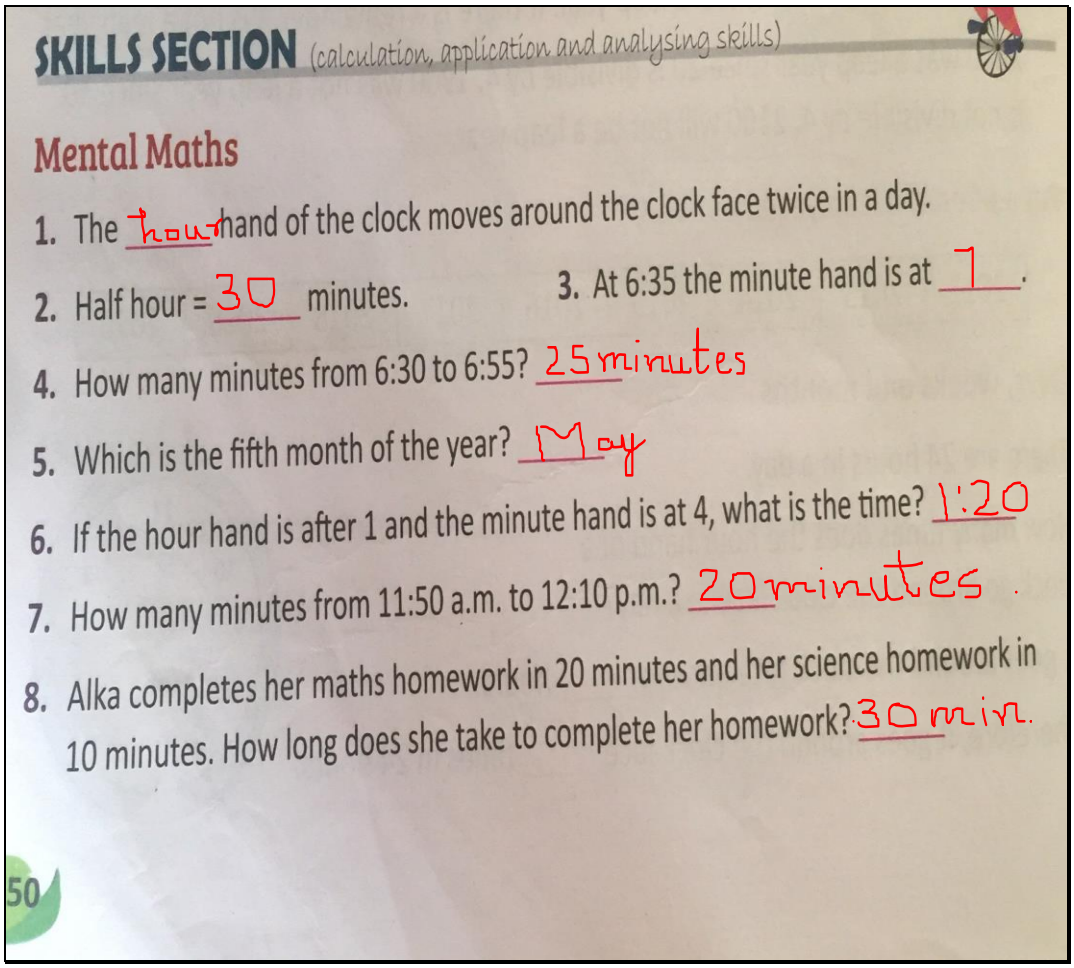
**Write your date of birth in three different ways.**

## Exercise –5

Q2. Write your date of birth in three different ways:

## Solution

i) 20/08/2011
ii) 20th August 2011
iii) 20–08–2011



**SKILLS SECTION** (calculation, application and analysing skills)

### Mental Maths

1. The hour hand of the clock moves around the clock face twice in a day.
2. Half hour = 30 minutes.
3. At 6:35 the minute hand is at 7.
4. How many minutes from 6:30 to 6:55? 25 minutes
5. Which is the fifth month of the year? May
6. If the hour hand is after 1 and the minute hand is at 4, what is the time? 1:20
7. How many minutes from 11:50 a.m. to 12:10 p.m.? 20 minutes.
8. Alka completes her maths homework in 20 minutes and her science homework in 10 minutes. How long does she take to complete her homework? 30 min.

50