

MATHEMATICS

Fourth grade primary

First Term

2019 - 2020

Sheet (1)
Hundred Thousands

| Hundreds | Tens | Units |
|-------------------|------------|---------|
| 100 one hundred | 10 ten | 1 one |
| 200 two hundred | 20 twenty | 2 two |
| 300 three hundred | 30 thirty | 3 three |
| 400 four hundred | 40 forty | 4 four |
| 500 five hundred | 50 fifty | 5 five |
| 600 six hundred | 60 sixty | 6 six |
| 700 seven hundred | 70 seventy | 7 seven |
| 800 eight hundred | 80 eighty | 8 eight |
| 900 nine hundred | 90 ninety | 9 nine |

[1] Write the following numbers in words:

(1) 264:

(2) 359:

Thousands

| Hundred thousand | Ten thousand | Thousand |
|------------------|--------------|----------|
|------------------|--------------|----------|

[2] Write the following numbers in words:

(1) 3 467:

(2) 76 008:

[3] Write the following numbers in words:

(1) 264 359:

(2) 100 698:

(3) 203 175:

(4) 500 006:



[4] Write the following numbers in digits:

(1) Six hundred thousand, eight hundred and forty-three
.....

(2) Seven hundred twenty thousand, three hundred and
seventy-nine

(3) Four hundred sixty-three thousand, two hundred and thirty
.....

(4) Five hundred thirty-four thousand, nine hundred and one
.....

[3] Write the value and the place value of the circled digit:

| The number | The value | The place value |
|------------|-----------|-----------------|
| 57④ 325 | | |
| 5⑧1 523 | | |
| ⑦32154 | | |
| 651②46 | | |
| 3214①6 | | |
| 32148⑨ | | |

[4] Complete as in the example:

(1) $236548 = 200000 + 30000 + 6000 + 500 + 40 + 8$

(2) $246826 = \dots + \dots + \dots + \dots + \dots + \dots$

(3) $913764 = \dots + \dots + \dots + \dots + \dots + \dots$

(4) $825792 = \dots + \dots + \dots + \dots + \dots + \dots$

(5) $624891 = \dots + \dots + \dots + \dots + \dots + \dots$

(6) $\dots = 500000 + 60000 + 7000 + 800 + 90 + 6$

(7) $\dots = 100000 + 70000 + 500 + 40$

(8) $\dots = 900000 + 4000 + 800 + 2$

(9) $\dots = 300000 + 80000 + 2000 + 50 + 3$

(10) $\dots = 700000 + 8$

[5] Complete:

(1) 700 thousands = tens

(2) 40 000 = hundreds

(3) 800 000 = thousands

(4) 400 thousands = hundreds

(5) 600 000 = tens



[6] Complete:

(1) The smallest 4-digit number is

(2) The smallest 5-digit number is

(3) The smallest 6-digit number is

(4) The smallest different 4-digit number is

(5) The smallest different 5-digit number is

(6) The smallest different 6-digit number is

(7) The greatest 4-digit number is

(8) The greatest 5-digit number is

(9) The greatest 6-digit number is

(10) The greatest different 4-digit number is

(11) The greatest different 5-digit number is

(12) The greatest different 6-digit number is

[7] Complete using the suitable sign (<), (>) or (=):

(1) 235647 245100

(2) 735970 699999

(3) 300 th 3000 h

[8] Complete in the same sequence:

(1) 236531 , 236532 , 236533 , , ,

(2) 415721 , 415731 , 415741 , , ,

(3) 753264 , 754265 , 755266 , , ,

[9] Write the greatest and the smallest number formed from the digits 7 , 0 , 5 , 4 , 1 , 3 then find their sum and the difference between them:

(1) The greatest number is

(2) The smallest number is

(3) The sum = + =

(4) The difference = - =

[10] Arrange:

a) 465132 , 934526 , 566270 , 356595 , 798594

Descending order: , , , ,

b) 682652 , 269758 , 821552 , 324885 , 525148

Ascending order: , , , ,

Sheet (2)

Millions and Millions (Billions)

[1] Complete the following table:

| Numbers | Milliards | | | Millions | | | Thousands | | | H | T | U |
|-----------------|-----------|---|---|----------|---|---|-----------|---|---|---|---|---|
| | H | T | U | H | T | U | H | T | U | | | |
| 125 406 548 987 | | | | | | | | | | | | |
| 563 589 021 479 | | | | | | | | | | | | |
| | 1 | 2 | 5 | 4 | 6 | 3 | 9 | 8 | 7 | 1 | 5 | 9 |
| | 1 | 2 | 9 | 6 | 4 | 7 | 8 | 5 | 2 | 0 | 8 | 2 |

[2] Complete:

(1) 125 436 548 98 = billion, million, thousand &

(2) 2 163 900 800 = billion, million, thousand &

(3) 74 132 876 514 = billion, million, thousand &

(4) 7 325 165 273 = billion, million, thousand &

(5) 275 153 276 542 = billion, million, thousand &

(6) 5 180 070 506 = billion, million, thousand &

(7) 6 537 002 054 = billion, million, thousand &

[3] Complete:

- (1) = 124 billion, 254 million, 102 thousand & 400
- (2) = 2 billion, 35 million, 504 thousand & 7
- (3) = 29 billion, 478 thousand & 54
- (4) = 301 billion, 927 million & 247
- (5) = 591 million & 15
- (6) = 9 billion
- (7) = 15 million

[4] Write the value and the place value of the circled digit:

| The number | The value | The place value |
|-----------------|-----------|-----------------|
| 57④ 325 526 412 | | |
| 5⑧1 523 256 412 | | |
| 562 ⑦32 154 546 | | |
| 655 1②4 652 487 | | |
| 321 54① 656 218 | | |
| ⑨32 148 562 487 | | |
| 214562 ⑦32 154 | | |

[5] Complete using the suitable sign (<), (>) or (=):

(1) 235 524 521 647 235 624 521 647

(2) 7 milliard 79 million

(3) 35 billion 35 milliard

[6] Write the following quantities of money in digits:

(1) $\frac{1}{4}$ Milliard pounds =

(2) $\frac{1}{2}$ Milliard pounds =

(3) $\frac{3}{4}$ Milliard pounds =

(4) $\frac{1}{4}$ Million pounds =

(5) $\frac{1}{2}$ Million pounds =

(6) $\frac{3}{4}$ Million pounds =

(7) $\frac{1}{4}$ Thousand pounds =

(8) $\frac{1}{2}$ Thousand pounds =

(9) $\frac{3}{4}$ Thousand pounds =

(10) 1000 thousand pounds =

(11) 1000 million pounds =

[7] Write the greatest number and the smallest number that can be formed from

7 , 0 , 5 , 4 , 8 , 3 , 5 , 6 , 1 , 3 , 2 , 9:

(1) The greatest number is

(2) The smallest number is

[8] Arrange:

c) 678 472 175 , 687 742 175 , 65 472 175 , 604 100 875

Descending order:,,,

d) 342 105 142 , 422 150 142 , 442 150 124 , 342 150 124

Ascending order:,,,

[9] Complete:

(1) The smallest 7-digit number is

(2) The smallest 9-digit number is

(3) The smallest different 8-digit number is

(4) The smallest different 10-digit number is

(5) The greatest 6-digit number is

(6) The greatest 12-digit number is

(7) The greatest different 7-digit number is

(8) The greatest different 8-digit number is

Sheet (3)

Adding and Subtracting Large Numbers

[1] Find the result:

| | | |
|--|--|--|
| a $\begin{array}{r} 3\ 7\ 8\ 5\ 4\ 2\ 1 \\ +\ 2\ 1\ 0\ 2\ 3\ 4 \\ \hline \end{array}$ | b $\begin{array}{r} 4\ 8\ 9\ 1\ 2\ 4\ 3 \\ +\ 3\ 1\ 0\ 2\ 3\ 1\ 5 \\ \hline \end{array}$ | c $\begin{array}{r} 6\ 5\ 8\ 8\ 7\ 6 \\ +\ 6\ 7\ 3\ 4\ 5\ 3\ 8 \\ \hline \end{array}$ |
| d $\begin{array}{r} 6\ 5\ 4\ 3\ 0\ 0\ 0 \\ -\ 4\ 2\ 4\ 2\ 7\ 8\ 8 \\ \hline \end{array}$ | e $\begin{array}{r} 7\ 0\ 0\ 8\ 1\ 9\ 8 \\ -\ 8\ 1\ 9\ 4\ 8\ 5 \\ \hline \end{array}$ | f $\begin{array}{r} 8\ 0\ 0\ 0\ 0\ 0\ 0 \\ -\ 3\ 5\ 1\ 4\ 6\ 7\ 9 \\ \hline \end{array}$ |

[2] Complete:

- (1) $847\ 215 + 204\ 684 = \dots\dots\dots$
- (2) $9\ 647\ 800 - 7\ 531\ 203 = \dots\dots\dots$
- (3) $547\ 643 + 3\ 849\ 768 = \dots\dots\dots$
- (4) $3\ 246\ 239 + \text{three hundred thousand}$
 $= \dots\dots\dots$
- (5) $7\ 279\ 324 - 5 \text{ millions} = \dots\dots\dots$

[3] Complete:

(1) $3\ 256\ 712 + \dots = 7\ 807\ 30$

(2) $\dots + 7\ 618\ 149 = 10\ 869\ 183$

(3) $9\ 256\ 000 - \dots = 5\ 312\ 989$

(4) $\dots - 4\ 808\ 199 = 3\ 121\ 703$

(5) $\dots - 7\ 218\ 305 = 6\ 977\ 455$

[4] Put (<), (>) or (=):

(1) $8\ 083\ 106 - 741\ 315 \dots 7\ 341\ 791$

(2) $999\ 999 + 1 \dots$ one million

(3) $5\ 984\ 531 + 4\ 403\ 564 \dots$ the greatest 7-digit number

(4) $587\ 815 + 6\ 541\ 389 \dots 9\ 875\ 941 - 2\ 746\ 739$

[5] Story problems:

(1) During a year, there were 4 578 984 visitors to the zoo, in the next year, there were 3 459 982 visitors. Calculate the sum of the visitors in the two years.

(2) The ministry of Health vaccinated 9 876 543 children last year and 8 456 783 children this year. Calculate the total number of the vaccinated children.

- (3) If the fruit exports of a country in a month was 1 342 006 tons and in the second month was 934 567 tons. Find the total sum of the fruit exports.
- (4) If the budget allocated to support drinking water increased in two consecutive years from 270 000 pounds to 750 000 pounds. Find the amount of the increase.
- (5) If the budget allocated to support medicine increased in two consecutive years from 4 543 000 pounds to 8 586 000 pounds to preserve the price of medicine. Find the amount of the increase.
- (6) A factory produced 2 987 543 toys in one year. The next year, the factory produced 3 267 594 toys. Find the difference between the productions in the two years.
- (7) In a year 3 270 624 tourists visited Karnak temple and in the next year 3 795 851 tourists visited it. Find the difference between them.
- (8) Ahmed had L.E. 2 000 000. He bought a car for L.E. 235 861 and a mobile for L.E. 2 500. Find the remainder money with him.

[6] Find the number if:

- (1) It is subtracted from million, the difference will be 209 312
- (2) It is added to 7 812 159, the sum will be 8 million
- (3) 270 408 is subtracted from it the difference will be 218 200

Sheet (4)

Multiplying a whole number by another

[1] Find the product:

a 2 3 4
 x 2

b 5 6 8
 x 5

c 753
 x 3

d 2579
 x 3

e 5003
 x 7

f 2061
 x 7

g 360542
 1
 x 6

h 13409
 7
 x 7

i 8342
 9
 x 9

[2] Find the product:

(1) 2 784 × 8 =

(2) 7 385 × 4 =

(3) 80 032 × 7 =

(4) 28 531 × 5 =

(5) 3 478 × 9 =

(6) 3 892 × 30 =

[2] Find the product:

| | |
|-------------------------|------------------------|
| (1) $123 \times 15 =$ | (2) $338 \times 12 =$ |
| (3) $338 \times 17 =$ | (4) $43 \times 24 =$ |
| (5) $28 \times 76 =$ | (6) $43 \times 35 =$ |
| (7) $163 \times 82 =$ | (8) $972 \times 25 =$ |
| (9) $904 \times 53 =$ | (10) $357 \times 49 =$ |
| (11) $7234 \times 34 =$ | (12) $436 \times 19 =$ |
| (13) $209 \times 55 =$ | (14) $112 \times 36 =$ |
| (15) $58 \times 22 =$ | (16) $116 \times 12 =$ |

[2] Complete using the suitable sign (<), (>) or (=):

- | | | |
|---------------------|-------|-----------------|
| (1) 38×16 | | 380×16 |
| (2) 36×67 | | 63×67 |
| (3) 328×64 | | 321×58 |
| (4) 47×88 | | 4136 |

[3] Complete:

- (1) Two thousand $\times 53 =$
- (2) $25 \times 75 \times 4 =$
- (3) $40 \times 21 \times 50 =$
- (4) $125 \times 35 \times 8 =$

[4] Story problems:

- (1) Ahmed saves L.E. 34 monthly. How much money he saves in 9 months?

He saves = = L.E.

- (2) A primary school is formed of 21 classes of 45 pupils each. Find the total number of the pupils.

The number of pupils = = pupils

- (3) If Ali and 29 passengers travelled to Hurghada city by Egypt air lines. The price of the ticket was L.E. 215. How much money did all passengers pay?

They paid = = L.E.

- (4) Ministry of education distributed 425 computers for each administration. Find the number of computers for 12 administrations.

Sheet (5)

Dividing a whole number by another

[1] Find the quotient:

(1) $6482 \div 2 = \dots\dots\dots$

(2) $9630 \div 3 = \dots\dots\dots$

(3) $2684 \div 2 = \dots\dots\dots$

(4) $8040 \div 4 = \dots\dots\dots$

(5) $8164 \div 4 = \dots\dots\dots$

(6) $9126 \div 3 = \dots\dots\dots$

(7) $2515 \div 5 = \dots\dots\dots$

(8) $1612 \div 2 = \dots\dots\dots$

(9) $3627 \div 9 = \dots\dots\dots$

(10) $3549 \div 7 = \dots\dots\dots$

[2] Find the result of each of the following:

| | |
|------------------------------------|------------------------------------|
| (1) $243 \div 3 = \dots\dots\dots$ | (2) $955 \div 5 = \dots\dots\dots$ |
| (3) $690 \div 2 = \dots\dots\dots$ | (4) $946 \div 2 = \dots\dots\dots$ |
| (5) $486 \div 3 = \dots\dots\dots$ | (6) $726 \div 6 = \dots\dots\dots$ |
| (7) $684 \div 4 = \dots\dots\dots$ | (8) $847 \div 7 = \dots\dots\dots$ |

(9) $655 \div 5 = \dots\dots\dots$

(10) $368 \div 8 = \dots\dots\dots$

(11) $865 \div 5 = \dots\dots\dots$

(12) $888 \div 6 = \dots\dots\dots$

(13) $264 \div 4 =$

(14) $294 \div 3 =$

(15) $518 \div 7 =$

(16) $624 \div 6 =$

(17) $840 \div 7 =$

(18) $1144 \div 8 =$

(19) $1404 \div 9 =$

(20) $7534 \div 2 =$

(21) $2532 \div 3 =$

(22) $3520 \div 4 =$

[3] Find the result of each of the following:

| | |
|-------------------------------------|-------------------------------------|
| (1) $300 \div 12 = \dots\dots\dots$ | (2) $646 \div 17 = \dots\dots\dots$ |
| (3) $384 \div 16 =$ | (4) $646 \div 19 =$ |
| (5) $774 \div 18 =$ | (6) $1196 \div 26 =$ |
| (7) $3618 \div 27 =$ | (8) $38571 \div 43 =$ |
| (9) $38052 \div 63 =$ | (10) $1376 \div 32 =$ |

[4] Story problems:

(1) A merchant bought 5 stoves for 25940 pounds. Find the price of each stove.

Price of each stove =

(2) A runner covers 24480 meters in 6 hours. Calculate how long he covers in one hour.

(3) Eman saved P.T. 4 975 in 5 months. Calculate how much money she saved in one month.

(4) If 756 pupils in a school are distributed equally among 18 classes. Find the number of pupils in each class.

(5) A group of 328 tourists is divided into 8 buses. Find the number of tourists that can each bus carry.

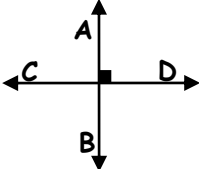
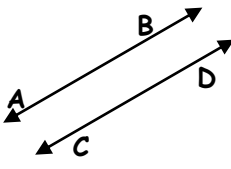




(6) Ahmed bought a TV set for 1660 pounds. He paid 340 pounds and the rest was divided on 24 equal instalments. Find the value of each instalment.

Rest =

Value of each instalment =

Sheet (6)

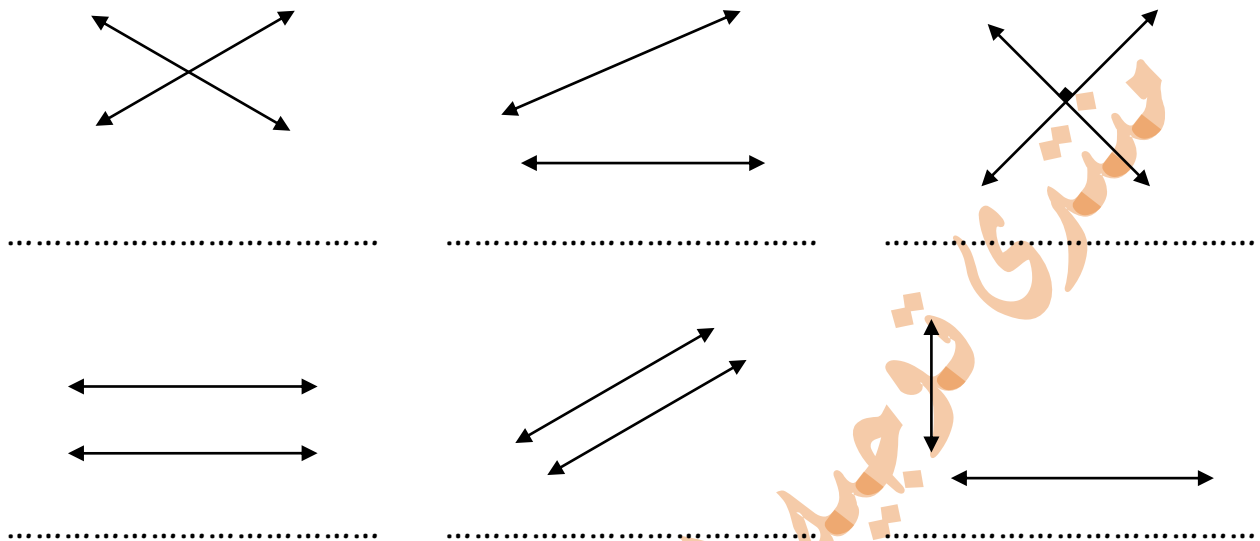
Relation between two straight lines

| Perpendicular lines (orthogonal lines) | Parallel lines | Intersecting lines |
|--|--|---|
|  <ol style="list-style-type: none"> Intersect at 1 point. Make 4 right angles. $\overline{AB} \perp \overline{CD}$ or $\overline{CD} \perp \overline{AB}$. |  <ol style="list-style-type: none"> $\overline{AB} \parallel \overline{CD}$ or $\overline{CD} \parallel \overline{AB}$. Intersect at 0 points |  <ol style="list-style-type: none"> Intersect at 1 point. M is the intersection point make 4 angles: 2 acute, 2 obtuse. |
|  |  |  |

[1] Complete:

- (1) Any two lines that never intersect are called
- (2) Any two lines that intersect at a point and make four right angles are called
- (3) The two intersecting lines intersect at point (s).
- (4) The two parallel lines intersect at point (s).
- (5) The two parallel lines make angles.
- (6) Two lines, if one angle at the intersection point of them is right, then the two lines are called

[2] Write (parallel, perpendicular or intersecting) to describe each two straight lines:



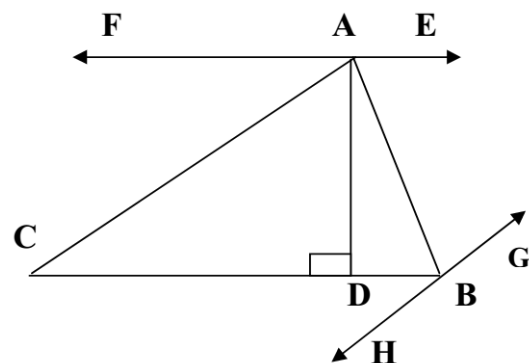
[3] Look at the opposite figure then complete using (// or \perp):

(1) \overleftrightarrow{AC} \overleftrightarrow{HG} .

(2) \overleftrightarrow{AD} \overleftrightarrow{CB} .

(3) \overleftrightarrow{FE} \overleftrightarrow{CB} .

(4) \overleftrightarrow{AD} \overleftrightarrow{FE} .



[4] Look at the opposite figure then complete:

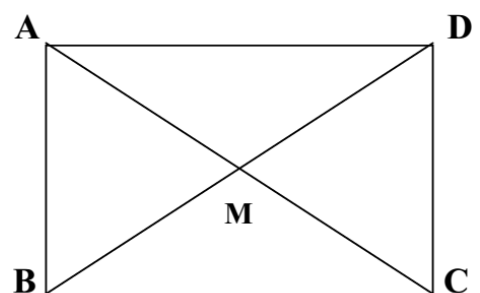
(1) \overleftrightarrow{AC} intersects \overleftrightarrow{BD} at the point

(2) \overleftrightarrow{AB} //

(3) \overleftrightarrow{DC} //

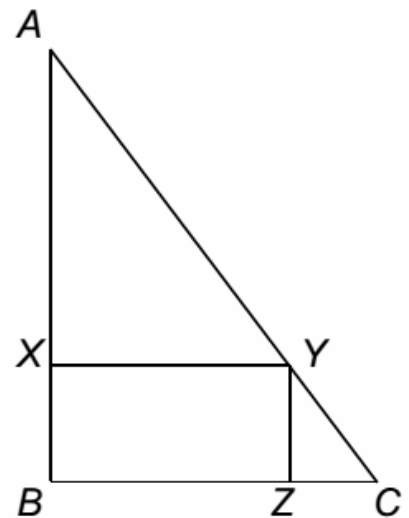
(4) $\overleftrightarrow{DC} \perp$ and

(5) $\overleftrightarrow{AD} \perp$ and

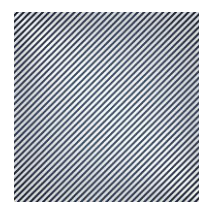
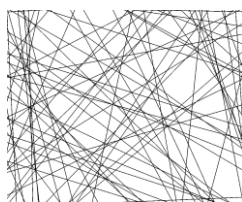


[5] Look at the opposite figure then complete:

- (1) \overleftrightarrow{AY} intersects \overleftrightarrow{BZ} at the point
- (2) \overleftrightarrow{YC} intersects \overleftrightarrow{BX} at the point
- (3) $\overleftrightarrow{AB} \perp$
- (4) $\overleftrightarrow{BC} \parallel$
- (5) $\overleftrightarrow{YZ} \perp$
- (6) $\overleftrightarrow{XY} \perp$
- (7) \overleftrightarrow{BZ} \overleftrightarrow{YZ} .
- (8) \overleftrightarrow{BZ} \overleftrightarrow{XY} .
- (9) \overleftrightarrow{XB} \overleftrightarrow{YZ} .
- (10) \overleftrightarrow{AB} \overleftrightarrow{BC} .
- (11) \overleftrightarrow{AC} and \overleftrightarrow{BZ} are
- (12) \overleftrightarrow{CZ} and \overleftrightarrow{AB} are
- (13) \overleftrightarrow{XY} and \overleftrightarrow{BC} are
- (14) \overleftrightarrow{AC} and \overleftrightarrow{XY} are
- (15) \overleftrightarrow{XY} and \overleftrightarrow{BC} are

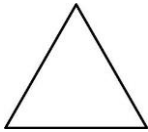
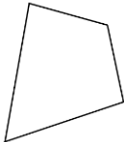
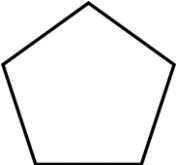

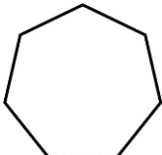
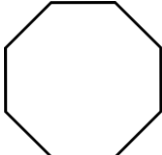
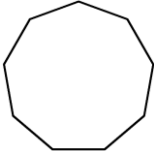
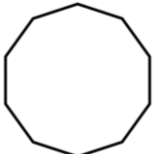


[6] Write (parallel, perpendicular or intersecting) to describe each two straight lines:



.....

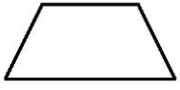
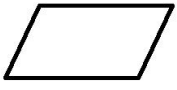

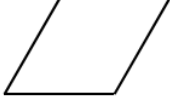
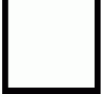
Sheet (7)
Polygons

| The Polygon | Name | No. of sides | No. of vertices | No. of angles |
|---|---------------|--------------|-----------------|---------------|
|  | Triangle | | | |
|  | Quadrilateral | | | |
|  | Pentagon | | | |
|  | Hexagon | | | |
|  | Heptagon | | | |
|  | Octagon | | | |
|  | Nonagon | | | |
|  | Decagon | | | |

Note: for any polygon:

number of sides = number of vertices = number of angles

Quadrilateral

| Trapezium | Parallelogram | Rectangle | Rhombus | Square |
|---|---|---|---|---|
|  |  |  |  |  |
| <ul style="list-style-type: none"> ▪ Only two opposite sides are parallel and not equal in length. | <ul style="list-style-type: none"> ▪ Each two opposite sides are parallel and equal in length. | <ul style="list-style-type: none"> ▪ Each two opposite sides are parallel and equal in length. | <ul style="list-style-type: none"> ▪ All sides are equal in length. ▪ Each two opposite sides are parallel. | <ul style="list-style-type: none"> ▪ All sides are equal in length. ▪ Each two opposite sides are parallel. |
| | | <ul style="list-style-type: none"> ▪ All angles are right. (90°) | | <ul style="list-style-type: none"> ▪ All angles are right. (90°) |
| | <ul style="list-style-type: none"> ▪ The diagonals bisect each other. | <ul style="list-style-type: none"> ▪ The diagonal bisect each other and equal in length. | <ul style="list-style-type: none"> ▪ The diagonals bisect each other and perpendicular | <ul style="list-style-type: none"> ▪ The diagonal bisect each other, equal in length and perpendicular |

[1] Complete:

- (1) The polygon that has 4 sides is called a
- (2) The hexagon is a polygon of sides, but the is a polygon with 3 sides.
- (3) The diagonals of the parallelogram
- (4) All sides are equal in length in and
- (5) The diagonals are perpendicular in and
- (6) The diagonals are equal in length in and
- (7) The diagonals are equal in length and perpendicular in
- (8) The quadrilateral has diagonals.
- (9) All angles are right in and

Homework

- | | |
|------------|--|
| 1. | The two intersecting straight lines that form 4 right angles are |
| | A) perpendicular B) parallel C) Intersecting and not perpendicular |
| 2. | The two perpendicular straight lines make an angle of measure |
| | A) 50 B) 90 C) 100 D) 80 |
| 3. | The geometric figure which its four sides are equal in length is called |
| | A) rhombus B) rectangle C) trapezium D) parallelogram |
| 4. | All sides are equal in length in |
| | A) rhombus B) rectangle C) trapezium D) parallelogram |
| 5. | Four angles are right in |
| | A) rhombus B) Square C) trapezium D) parallelogram |
| 6. | The measure of any angle in rectangle is..... |
| | A) 45 B) 90 C) 150 D) 180 |
| 7. | The square is a quadrilateral whose angles are.....angles |
| | A) Acute B) Right C) Obtuse D) straight |
| 8. | The polygon which hassides is called hexagon |
| | A) 5 B) 6 C) 7 D) 8 |
| 9. | The diagonals are equal in length in |
| | A) rhombus B) rectangle C) trapezium D) parallelogram |
| 10. | The two diagonals are perpendicular in the |
| | A) rhombus B) rectangle C) trapezium D) parallelogram |
| 11. | The two diagonals are perpendicular and equal in the |
| | A) rectangle B) Square C) rhombus D) parallelogram |

12. The two diagonals of the parallelogram are
A) Equal B) Perpendicular C) bisect each other


13. The two diagonals of the rectangle are
A) Equal B) Parallel C) Right D) Perpendicular


14. The two diagonals of the rhombus are
A) Equal B) Parallel C) Right D) Perpendicular


15. The two diagonals of the Square are
A) Equal B) Parallel C) Perpendicular D) A and D

16. The diagonals of the are equal in length and perpendicular
A) rectangle B) Square C) rhombus D) parallelogram

17. The shape which has each two opposite sides are parallel is called...
A) Triangle B) Quad C) trapezium D) parallelogram

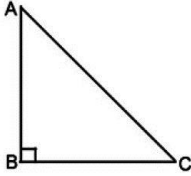
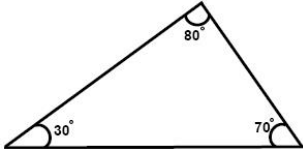
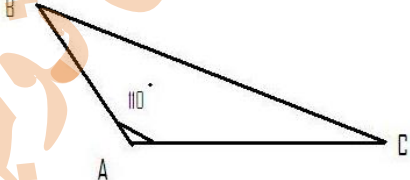
18. The figure  is called
A) rectangle B) Square C) trapezium D) parallelogram

19. The figure  is called
A) rectangle B) Square C) trapezium D) parallelogram

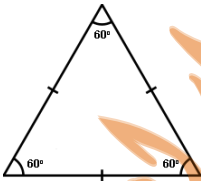
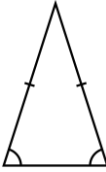

20. The figure  is called
A) rectangle B) Square C) trapezium D) parallelogram

The Triangle

Identifying the type of the triangle according to the measures of its angles

| Right-angled triangle | Acute-angled triangle | Obtuse-angled triangle |
|---|---|--|
|  |  |  |
| <ul style="list-style-type: none"> It has only one right angle and two acute angles. | <ul style="list-style-type: none"> It has three acute angles. | <ul style="list-style-type: none"> It has only one obtuse angle and two acute angles. |

Identifying the type of the triangle according to the length of its sides

| Equilateral triangle | Isosceles triangle | Scalene triangle |
|--|---|--|
|  |  |  |
| <ul style="list-style-type: none"> The three sides are equal in length. | <ul style="list-style-type: none"> Two sides only are equal in length. | <ul style="list-style-type: none"> The three sides are different in length. |

Note: the sum of the measure of the interior angles of any triangle = 180° .

Remarks

- (1) Any triangle has at least two acute angles.
- (2) We can't find two right angles in one triangle.
- (3) We can't find two obtuse angles in one triangle.

[1] Determine the type of the triangles that the measure of their angles as follows:

- (1) $m(\angle A)=30^\circ$, $m(\angle B)=90^\circ$ and $m(\angle C)=60^\circ$ angled triangle.
- (2) $m(\angle A)=30^\circ$ and $m(\angle B)=40^\circ$ angled triangle.
- (3) $m(\angle A)=32^\circ$ and $m(\angle C)=58^\circ$ angled triangle.
- (4) $m(\angle B)=20^\circ$ and $m(\angle C)=80^\circ$ angled triangle.

[2] Determine the type of the triangles according to their side lengths:

- (1) $AB = 6$ cm, $BC = 3$ cm and $AC = 6$ cm triangle.
- (2) $AB = 4$ cm, $BC = 8$ cm and $AC = 5$ cm triangle.
- (3) $AB = 5$ cm, $BC = 5$ cm and $AC = 5$ cm triangle.

[3] Which of the following can be measures of the angles of a triangle?:

- (1) $m(\angle A)=53^\circ$, $m(\angle B)=72^\circ$ and $m(\angle C)=55^\circ$.
- (2) $m(\angle A)=70^\circ$, $m(\angle B)=56^\circ$ and $m(\angle C)=60^\circ$.
- (3) $m(\angle A)=m(\angle B)=40^\circ$ and $m(\angle C)=100^\circ$.

Homework

1. Measure of the right angle measure of the obtuse angle
 A) = B) > C) < D) 2
2. Measure of the right angle measure of the acute angle
 A) = B) > C) < D) 2
3. Measure of the acute angle measure of the obtuse angle
 A) = B) > C) < D) 2
4. The sum of measures of the interior angles of any triangle.....
 A) 100 B) 120 C) 140 D) 180
5. Any triangle has at least acute angles.
 A) 0 B) 1 C) 2 D) 3
6. The measure of each angle in the equilateral triangle equals
 A) 40 B) 50 C) 60 D) 70
7. If three sides are different in length then triangle is..... triangle
 A) Isosceles B) Scalene C) equilateral
8. Triangle with side lengths 6 cm. , 6 cm. and 6 cm. is called
 A) Isosceles B) Scalene C) equilateral
9. Triangle with side lengths 3 cm. , 3 cm. and 4 cm. is called
 A) Isosceles B) Scalene C) equilateral
10. Triangle with side lengths 3 cm. , 7 cm. and 5 cm. is called
 A) Isosceles B) Scalene C) equilateral
11. Triangle with side lengths 5 cm. , 5 cm. and 3 cm. is called
 A) Isosceles B) Scalene C) equilateral
12. In $\triangle ABC$ $m(\angle A) = m(\angle B) = 30$, then $m(\angle C) =$
 A) 180 B) 90 C) 60 D) 120
13. In $\triangle ABC$ $m(\angle A) = 40$, $m(\angle B) = 30$, then $m(\angle C) =$
 A) 100 B) 110 C) 120 D) 70
14. In $\triangle ABC$ $m(\angle A)=40, m(\angle B)=30$, then $\triangle ABC$ is triangle
 A) Isosceles B) Scalene C) equilateral

Drawing Triangle

First: Two angles and one side:

1 Draw ΔABC in which $BC = 4 \text{ cm}$, $m(\angle B) = 50^\circ$, $m(\angle C) = 60^\circ$, then without using the protractor calculate $m(\angle A)$.

2 Draw ΔABC in which $AB = 6 \text{ cm}$, $m(\angle A) = 30^\circ$,
 $m(\angle B) = 40^\circ$, Find: (1) $m(\angle C)$
 (2) The type of ΔABC according to the measures of its angles.

3 Draw ΔABC in which $AB = 5 \text{ cm}$, $m(\angle A) = 60^\circ$,
 $m(\angle B) = 90^\circ$, Find: (1) $m(\angle C)$
 (2) The type of ΔABC according to the measures of its angles.

4 Draw ΔXYZ , $XY = 5 \text{ cm}$, $m(\angle X) = m(\angle Y) = 45^\circ$
 then find: a) $m(\angle Z)$
 b) The Type of ΔXYZ According to the measures of its angles

Second: Two sides and one angle:

5 Draw ΔABC , $AB = 3 \text{ cm}$, $BC = 4 \text{ cm}$, and $m(\angle B) = 90^\circ$,
 then Find the length of AC

6 Draw ΔABC , $AB = BC = 6 \text{ cm}$, $m(\angle B) = 60^\circ$, then :
 a) Find the length of AC
 b) What the Type of ΔABC According to its side lengths?

Homework

1 Draw ΔABC , $AB = 5$ cm, $m(\angle B) = 60^\circ$ and $BC = 5$ cm, then :

- By using the ruler Find the length of AC
- What the Type of ΔABC According to its side lengths?

2 Draw ΔABC , $AB = BC = 7$ cm, $m(\angle B) = 60^\circ$, then :

- Find the length of AC
- What the Type of ΔABC According to its side lengths?

3 Draw ΔXYZ , $XY = 6$ cm, $m(\angle X) = m(\angle Y) = 45^\circ$ then:

- Find $m(\angle Z)$
- What the Type of ΔXYZ According to angles measures?

4 Draw ΔXYZ , $XY = 6$ cm, $m(\angle X) = m(\angle Y) = 40^\circ$ then find:

- $m(\angle Z)$
- The Type of ΔXYZ According to the measures of its angles

Sheet (8)

Multiples and Divisibility

$$6 = 2 \times 3$$

- 6 is a multiple of 2 and 3
- 6 is divisible by 2 and 3
- 6 divided by 2 and 3
- 6 is in table 2 and 3
- 2, 3 are factors of 6

→ The multiples of 2 are: 0 , 2 , 4 , 6 , 8 , 10 , 12 , ...
This even numbers if its unit digit 0, 2, 4, 6, 8
for example: 350 , 792 , 834

→ The multiples of 3 are: 0 , 3 , 6 , 9 , 12 , 15 , 18 , ...
The number is in table 3 if the sum of its digit in table 3.
for example:

240; $2 + 4 + 0 = 6$ in table 3, 240 divisible by 3.

351; $3 + 5 + 1 = 9$ in table 3, 351 divisible by 3.

251; $2 + 5 + 1 = 8$ not in table 3, 251 not divisible by 3.

→ The multiples of 4 are: 0 , 4 , 8 , 12 , 16 , 20 , 24 , ...

→ The multiples of 5 are: 0 , 5 , 10 , 15 , 20 , 25 , 30 , ...
The number is divisible by 5 if its unit digit 0 or 5 only.

→ The multiples of 10 are: 0 , 10 , 20 , 30 , 40 , 50 , 60 , ...
The number is divisible by 10 if its unit digit is 0 only.

→ is a multiple of all numbers except 0.

[1] Circle the numbers which are:

- | | |
|------------------------------|----------------------------------|
| (1) Multiple of the number 2 | [17 , 5 , 26 , 8 , 3 , 15 , 20] |
| (2) Multiple of the number 3 | [16 , 18 , 10 , 21 , 22 , 12] |
| (3) Multiple of the number 5 | [2 , 5 , 7 , 10 , 15 , 20 , 23] |
| (4) Multiple of the number 8 | [2 , 8 , 12 , 16 , 24 , 32 , 36] |

[2] Choose the correct answer:

- (1) is a multiple of 3 [2 , 8 , 48]
- (2) is a multiple of 7 [45 , 49 , 22]
- (3) is a multiple of all numbers [0 , 1 , 2]

[3] Use the numbers 816, 720, 4599 and 1239 to complete:

- (1) The numbers divisible by 2 are
- (2) The numbers divisible by 3 are
- (3) The numbers divisible by 5 are

[4] Choose the correct answer:

- (1) 105 is a divisible by [2, 3 or 2, 5 or 5, 3]
- (2) All even numbers are divisible by [2 , 3 , 4]
- (3) The number is divisible by 3 [13 , 852 , 100]
- (4) The number is divisible by 5 [125 , 371 , 268]
- (5) The number 651 is divisible by [2 , 3 , 5]

[5] Complete:

- (1) The multiples of 3 less than 30 are
- (2) The multiples of 5 lying between 10 and 40 are
- (3) The common multiples of 2 and 3 less than 20 are
- (4) The common multiples of 3 and 5 less than 50 are
- (5) The numbers which are between 32 and 48 and divisible by 2 are
- (6) The numbers which are between 68 and 108 and divisible by 5 are

Homework

[1] Choose the correct answer:

| | |
|-----------|--|
| 1 | is a common multiple for all counting numbers A) 5 B) 0 C) 1 D) 10 |
| 2 | 26 , 4 , 2 and 20 are multiples of the number A) 2 B) 7 C) 9 D) 13 |
| 3 | The number 235 is divisible by A) 3 B) 5 C) 6 D) 10 |
| 4 | The number is divisible by 2 , 3 A) 10 B) 18 C) 13 D) 15 |
| 5 | All even numbers divisible by A) 2 B) 3 C) 4 D) 5 |
| 6 | The number 1278 is divisible by A) 3 B) 5 C) 7 D) 10 |
| 7 | The common multiple of all numbers is A) 10 B) 2 C) 5 D) 0 |
| 8 | The number 57 is divisible by A) 5 B) 2 C) 3 D) 11 |
| 9 | The number is divisible by 3 A) 83 B) 37 C) 87 D) 98 |
| 10 | is a multiple of the number 5 A) 23 B) 40 C) 51 D) 8 |
| 11 | The number 117 is divisible by A) 5 B) 2 C) 3 D) 8 |
| 12 | is divisible by 5 A) 125 B) 371 C) 268 D) 299 |
| 13 | The number 35 is divisible by A) 5 B) 2 C) 3 D) 11 |

[2] Choose the correct answer:

| | | | | | |
|----|---|------------|------------|------------|----------------|
| 1 | The number 201 is divisible by | A) 2 | B) 3 | C) 5 | D) 10 |
| 2 | The number 501 is divisible by | A) 5 | B) 3 | C) 2 | D) 10 |
| 3 | The number is divisible by 2 , 3 | A) 32 | B) 43 | C) 324 | D) 500 |
| 4 | The number 108 is divisible by | A) 5 | B) 2 | C) 7 | D) 11 |
| 5 | The number is divisible by 3 | A) 13 | B) 852 | C) 100 | D) 275 |
| 6 | All the numbers are divisible by 2 | A) Even | B) Odd | C) Prime | D) Less than 5 |
| 7 | The number 15 is common multiple of the two numbers | A) 2 and 5 | B) 3 and 4 | C) 3 and 5 | D) 3 and 2 |
| 8 | 205 is divisible by | A) 2 | B) 3 | C) 4 | D) 5 |
| 9 | The number is divisible by 3 | A) 29 | B) 13 | C) 32 | D) 72 |
| 10 | The multiple of 5 and 2 is | A) 1 | B) 12 | C) 10 | D) 105 |
| 11 | The number 658 is divisible by | A) 2 | B) 3 | C) 5 | D) 10 |
| 12 | The number is multiple of 5 | A) 12 | B) 20 | C) 16 | D) 33 |
| 13 | 36 is divisible by | A) 2 only | B) 5 | C) 2 and 3 | D) 2 and 5 |
| 14 | The number is divisible by 3 | A) 28 | B) 13 | C) 24 | D) 29 |

[3] Choose the correct answer:

| | |
|----|--|
| 1 | The number is divisible by 5 A) 153 B) 562 C) 135 D) 172 |
| 2 | is divisible by 2 , 3 A) 15 B) 10 C) 42 D) 23 |
| 3 | The number 115 is divisible by A) 2 B) 3 C) 5 D) 6 |
| 4 | The number is divisible by 3 A) 283 B) 131 C) 116 D) 405 |
| 5 | The number is divisible by 2 , 3 and 5 A) 15 B) 105 C) 510 D) 152 |
| 6 | 49 is a multiple of A) 6 B) 4 C) 7 D) 9 |
| 7 | The number 231 is divisible by A) 5 B) 2 C) 3 D) 10 |
| 8 | The number is divisible by 10 A) 240 B) 236 C) 428 D) 555 |
| 9 | The multiple of 6 that included between 15 and 20 is A) 16 B) 18 C) 17 D) 19 |
| 10 | The number 2100 is divisible by A) 7 B) 11 C) 13 D) 9 |
| 11 | is divisible by both 2 and 3 A) 23 B) 26 C) 30 D) 201 |
| 12 | The number 39 is divisible by A) 2 B) 3 C) 5 D) 7 |
| 13 | The number is divisible by 3 A) 123 B) 11 C) 31 D) 55 |
| 14 | The number is divisible by 2 and 5 A) 285 B) 130 C) 24 D) 15 |

Sheet (9)

Factors and Prime numbers

First: Factors :

| | |
|--|--|
| <p>→ $1 = 1 \times 1$ 1 is a factor of 1 One has only one factor.</p> | <p>→ $2 = 1 \times 2$ 1 and 2 are factors of 2 2 has only 2 factors.</p> |
| <p>→ $3 = 1 \times 3$ 1 and 3 are factors of 3 3 has only 2 factors.</p> | <p>→ $4 = 1 \times 4 = 2 \times 2$ 1, 2 and 4 are factors of 4 4 has 3 factors.</p> |
| <p>→ $5 = 5 \times 1$ 1 and 5 are factors of 5 5 has only 2 factors.</p> | <p>→ $6 = 1 \times 6 = 2 \times 3$ 1, 2, 3 and 6 are factors of 6 6 has 4 factors.</p> |
| <p>→ $7 = 1 \times 7$ 1 and 7 are factors of 7 7 has only 2 factors.</p> | <p>→ $8 = 1 \times 8 = 2 \times 4$ 1, 2, 4 and 8 are factors of 8 8 has 4 factors.</p> |
| <p>→ $9 = 1 \times 9 = 3 \times 3$ 1, 3 and 9 are factors of 9 9 has 3 factors.</p> | <p>→ $10 = 1 \times 10 = 2 \times 5$ 1, 2, 5 and 10 are factors of 10 10 has 4 factors.</p> |

We observe that:

- is a factor of all numbers.
- is not a factor of any number.
- Any number is a factor of itself except 0.

Second: Prime numbers:

- The prime number is a whole number that has only 2 factors.
- The prime number is divisible only by 1 and itself.
- 2 is the smallest prime number.
- 2 is the only even prime number.
- All prime numbers are odd except 2

| | | | |
|----|----|----|----|
| 2 | 3 | 5 | 7 |
| 11 | 13 | 17 | 19 |
| 23 | 29 | | |
| 31 | 37 | | |
| 41 | 43 | 47 | |
| 53 | 59 | | |
| 61 | 67 | | |
| 71 | 73 | 79 | |
| 83 | 89 | | |
| 97 | | | |

[1] Complete:

- (1) The factors of number 3 are
- (2) The factors of number 4 are
- (3) The factors of number 5 are
- (4) The factors of number 9 are

[2] Complete using "prime number" or "not prime number":

| | |
|------------------|------------------|
| (1) 2 is | (2) 4 is |
| (3) 1 is | (4) 5 is |
| (5) 6 is | (6) 7 is |
| (7) 9 is | (8) 11 is |
| (9) 12 is | (10) 13 is |
| (11) 16 is | (12) 23 is |

[3] Put (✓) for the correct statement and (×) for the incorrect one:

- (1) 3 and 7 are factors of the number 63 ()
- (2) The factors of the number 18 are 2,3,6,9 and 18 only.()
- (3) The factors of the number 14 are 1, 2 and 7 only. ()
- (4) The number 7 has two factors only. ()
- (5) The number 40 has two factors only. ()
- (6) The smallest prime number is one. ()
- (7) The number 21 is a prime number. ()
- (8) The numbers 1, 3 , 5 and 11 are all prime numbers. ()
- (9) The number 1 is a prime number. ()

[4] Choose the correct answer:

- (1) 5 is a factor of (54 , 50 , 53)
- (2) 3 is a factor of (53 , 163 , 354)
- (3) 2 and 5 are factors of (601 , 201 , 210)
- (4) The number 11 has factors. (2 , 3 , 4)
- (5) is a factor of all numbers. (0 , 1 , 2)
- (6) is a factor of 9 (0 , 3 , 18)
- (7) 2, 3 and 5 are prime factors of (6, 10, 30)
- (8) is a prime number (16 , 19 , 21)
- (9) The smallest prime number is (0 , 1 , 2)
- (10) The smallest odd prime number is (1 , 2 , 3)
- (11) is a prime number between 44 and 50. (45 , 47 , 49)
- (12) isn't prime number. (1 , 3 , 5)
- (13) is a prime number. (97 , 201 , 111)
- (14) is a non-prime number. (89 , 67 , 213)

(15) 3 , 2 and 7 are prime factors of (21 , 42 , 44)

(16) 2 , 5 and 7 are prime factors of (25 , 35 , 70)

(17) 108 is divisible by the two prime numbers 3 and ...(9 , 7, 2)

Homework

Choose the correct answer:

| | | | | | |
|-----------|---|--------|---------|----------|--------------|
| 1 | Number of factors of 3 is | A) 2 | B) 3 | C) 4 | D) 5 |
| 2 | Number of factors of 8 is | A) 2 | B) 3 | C) 4 | D) 5 |
| 3 | Number of factors of 9 is | A) 2 | B) 3 | C) 4 | D) 5 |
| 4 | The number 12 has factors | A) 3 | B) 4 | C) 5 | D) 6 |
| 5 | 3 is a factor of | A) 35 | B) 20 | C) 27 | D) 31 |
| 6 | 3 is a factor of | A) 18 | B) 20 | C) 25 | D) 31 |
| 7 | is a factor of 6 | A) 2 | B) 5 | C) 7 | D) 9 |
| 8 | is a factor of 12 | A) 5 | B) 3 | C) 9 | D) 10 |
| 9 | The number that is divisible by 2 is called | A) Odd | B) Even | C) Prime | D) Otherwise |
| 10 | The number that has only two factors is | A) 2 | B) 10 | C) 6 | D) 9 |
| 11 | The smallest even prime number is | A) 0 | B) 1 | C) 2 | D) 3 |

| | |
|-----------|---|
| 12 | Is a prime number. A) 4 B) 6 C) 8 D) 7 |
| 13 | Is a prime number. A) 11 B) 6 C) 8 D) 10 |
| 14 | From the prime numbers A) 31 B) 10 C) 12 D) 16 |
| 15 | Is a prime factor of 10 A) 1 B) 6 C) 5 D) 10 |
| 16 | Is a prime number between 30 and 40 is A) 33 B) 35 C) 37 D) 39 |
| 17 | Is a prime number between 32 and 40 is A) 33 B) 35 C) 37 D) 39 |
| 18 | The number whose prime factors are 2 , 2 , 2 and 3 is A) 20 B) 22 C) 24 D) 28 |
| 19 | Number of factors of 4 is A) 2 B) 3 C) 4 D) 5 |
| 20 | Number of factors of 11 is A) 2 B) 3 C) 4 D) 5 |
| 21 | The number 18 has factors A) 3 B) 4 C) 5 D) 6 |
| 22 | 5 is a factor of A) 25 B) 8 C) 16 D) 24 |
| 23 | is a factor of 6 A) 10 B) 1 C) 7 D) 9 |
| 24 | is a factor of 12 A) 5 B) 7 C) 4 D) 10 |
| 25 | The number that has only two factors is A) 12 B) 7 C) 6 D) 9 |
| 26 | The only even prime number is A) 0 B) 1 C) 2 D) 3 |

[2] Choose the correct answer:

| | | | | | |
|----|---|--------------|--------------|--------------|--------------|
| 1 | From the prime numbers | A) 4 | B) 10 | C) 37 | D) 16 |
| 2 | The prime numbers between 9 and 16 are | A) 11 and 12 | B) 11 and 13 | C) 13 and 15 | D) 14 and 15 |
| 3 | The number whose prime factors are 2 , 3 and 5 is | A) 20 | B) 30 | C) 40 | D) 50 |
| 4 | Number of factors of 6 is | A) 2 | B) 3 | C) 4 | D) 5 |
| 5 | Number of factors of 15 is | A) 2 | B) 3 | C) 4 | D) 5 |
| 6 | The number 20 has factors | A) 3 | B) 4 | C) 5 | D) 6 |
| 7 | 5 is a factor of | A) 33 | B) 35 | C) 16 | D) 24 |
| 8 | is a factor of 6 | A) 11 | B) 5 | C) 3 | D) 9 |
| 9 | is a factor of 12 | A) 5 | B) 7 | C) 9 | D) 6 |
| 10 | The number that has only two factors is | A) 15 | B) 10 | C) 13 | D) 9 |
| 11 | The smallest odd prime number is | A) 0 | B) 1 | C) 2 | D) 3 |
| 12 | Is a prime number. | A) 4 | B) 6 | C) 17 | D) 10 |
| 13 | From the prime numbers | A) 4 | B) 41 | C) 12 | D) 16 |

| | |
|-----------|--|
| 14 | The prime number lying between 10 and 20 is |
| | A) 21 B) 15 C) 25 D) 17 |
| 15 | The number whose prime factors are 2 , 2 and 3 is |
| | A) 12 B) 30 C) 40 D) 50 |
| 16 | The common factor of all numbers is |
| | A) 0 B) 1 C) 2 D) 3 |
| 17 | Number of factors of 10 is |
| | A) 2 B) 3 C) 4 D) 5 |
| 18 | Number of factors of 16 is |
| | A) 2 B) 3 C) 4 D) 5 |
| 19 | The number 15 has factors |
| | A) 3 B) 4 C) 5 D) 6 |
| 20 | 5 is a factor of |
| | A) 33 B) 8 C) 45 D) 24 |
| 21 | is a factor of 6 |
| | A) 10 B) 5 C) 7 D) 6 |
| 22 | is a factor of 10 |
| | A) 3 B) 7 C) 1 D) 6 |
| 23 | is a factor of 12 |
| | A) 5 B) 1 C) 9 D) 10 |
| 24 | The number that has only two factors is |
| | A) 6 B) 10 C) 6 D) 17 |
| 25 | Is a prime number. |
| | A) 2 B) 6 C) 8 D) 10 |
| 26 | Is a prime number. |
| | A) 4 B) 6 C) 8 D) 19 |
| 27 | From the prime numbers |
| | A) 4 B) 10 C) 43 D) 16 |

Sheet (10)

Factorization

Highest Common Factor (H.C.F)

Lowest Common Multiple (L.C.M)

Factorization:

| | | | | | |
|----|----|----|----|----|--|
| 4 | 8 | 16 | 6 | 12 | |
| 9 | 18 | 24 | 36 | 30 | |
| 14 | 60 | 45 | 28 | 21 | |
| 42 | 56 | 15 | 35 | 48 | |

Remarks:

- 1 is a common factor for all numbers.
- 1 isn't the highest common factor of any two numbers.
- There is no H. C. F. between the prime numbers.
- Zero is a common multiple of all whole numbers, but it isn't a lowest common multiple.

[1] Find H.C.F. and L.C.M. for each group of the following numbers:

| | |
|---------------|----------------|
| (1) 8 and 12 | (2) 24 and 16 |
| (3) 24 and 30 | (4) 12 and 18 |
| (5) 24 and 36 | (6) 12 and 36 |
| (7) 28 and 42 | (8) 45 and 60 |
| (9) 25 and 15 | (10) 12 and 15 |

(11) 6, 12 and 15

(12) 8, 12 and 36

Special Cases:

[2] Find H.C.F. and L.C.M.:

(1) 8 and 4

(2) 6 and 12

(3) 3 and 6

(4) 6 and 5

(5) 2 and 3

(6) 7 and 9

Sheet (11)

Perimeter and Area

Length units:

Important remarks

- 1** To convert a larger unit to a smaller unit , we multiply.
- 2** To convert a smaller unit to a larger unit , we divide.

Area units:

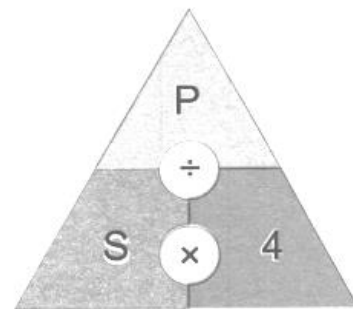
Important remarks

- 1** To convert a larger unit to a smaller unit , we multiply.
- 2** To convert a smaller unit to a larger unit , we divide.

[1] Complete:

| | |
|--|---|
| (1) 5 m = cm | (2) 4 m = cm |
| (3) 6 m = cm | (4) 3 cm = mm |
| (5) 8 km = m = dm | (6) 9 m = dm = cm |
| (7) 8 m = mm | (8) 2 dm = mm |
| (9) km = 4000 m | (10) cm = 3 m |
| (11) 8000 cm = m | (12) 4 km = m = cm |
| (13) 5 dm ² = cm ² | (14) 5 m ² = cm ² |

Perimeter of square:



[1] Complete:

- (1) The perimeter of square whose side length 5 cm is
- (2) The perimeter of square whose side length 6 cm is
- (3) The perimeter of square whose side length 7 cm is
- (4) The perimeter of square whose side length 8 cm is
- (5) The perimeter of square whose side length 9 cm is
- (6) The side length of a square of perimeter 20 cm is
- (7) The side length of a square of perimeter 24 cm is

(8) The side length of a square of perimeter 32 cm is

(9) The side length of a square of perimeter 36 cm is

Perimeter of rectangle:

The perimeter of the rectangle = (length + width) × 2

[1] Complete:

(1) The perimeter of a rectangle whose dimensions 5 cm and 2 cm is

(2) The perimeter of a rectangle whose dimensions 7 cm and 5 cm is

(3) The perimeter of a rectangle whose dimensions 8 cm and 5 cm is

(4) Which is greater; the perimeter of a rectangle of length 7 cm and width 4 cm or the perimeter of a square of side length 6 cm?

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.....
.....

Area of square:

The area of the square = side length × side length

Area = S × S

[1] Complete:

(1) The area of square whose side length 3 cm is

(2) The area of square whose side length 4 cm is

(3) The area of square whose side length 5 cm is

(4) The area of square whose side length 6 cm is

[2] Essay problems:

(1) Find the area of a square whose perimeter 24 cm.

.....
.....

(2) Find the area of a square whose perimeter 32 cm.

.....
.....

(3) Find the area of a square whose perimeter 12 cm.

.....
.....

Area of rectangle:

The area of the rectangle = length × width

[1] Complete:

(1) The area of rectangle whose dimensions 4 cm and 3 cm is

(2) The area of rectangle whose dimensions 8 cm and 5 cm is

(3) The area of rectangle whose dimensions 6 cm and 8 cm is

[2] Essay problems:

(1) If the dimensions of a rectangle are 8 cm and 4 cm. Find its perimeter and its area.

.....
.....

(2) Which is greater, the area of a square of side length 6 cm or the area of rectangle whose dimensions are 5 cm and 7 cm?

.....
.....

The summary

| | Area | Perimeter |
|-----------|------------------|------------------------|
| Rectangle | $A = L \times W$ | $P = (L + W) \times 2$ |
| Square | $A = S \times S$ | $P = S \times 4$ |

Homework

[1] Choose the correct answer:

| | |
|-----------|---|
| 1 | The perimeter of a square = A) $L \times L$ B) $L \times 4$ C) $L \times W$ D) $(L+W) \times 2$ |
| 2 | The area of a square = A) $L \times L$ B) $L \times 4$ C) $L \times W$ D) $(L+W) \times 2$ |
| 3 | The perimeter of a rectangle = A) $L \times L$ B) $L \times 4$ C) $L \times W$ D) $(L+W) \times 2$ |
| 4 | The area of a rectangle = A) $L \times L$ B) $L \times 4$ C) $L \times W$ D) $(L+W) \times 2$ |
| 5 | The perimeter of a square of side length is 3 cm = cm A) 12 B) 20 C) 16 D) 28 |
| 6 | The perimeter of a square of side length is 5 cm = cm A) 12 B) 20 C) 16 D) 28 |
| 7 | The perimeter of a square of side length is 4 cm = cm A) 12 B) 20 C) 16 D) 28 |
| 8 | The perimeter of a square of side length is 7 cm = cm A) 12 B) 20 C) 16 D) 28 |
| 9 | The area of a square of side length is 3 cm = A) 9 cm B) 9 cm^2 C) 12 cm^2 D) 12 cm |
| 10 | The area of a square of side length is 4 cm = cm^2 A) 8 B) 16 C) 36 D) 81 |
| 11 | The area of a square of side length is 5 cm = A) 25 cm B) 25 cm^2 C) 20 cm^2 D) 20 cm |
| 12 | The area of a square of side length is 6 cm = cm^2 A) 36 B) 24 C) 60 D) 12 |
| 13 | The side length of a square of perimeter is 24 cm = cm^1 A) 9 B) 4 C) 5 D) 6 |
| 14 | The side length of a square of perimeter is 36 cm = cm^1 A) 9 B) 4 C) 5 D) 7 |

Sheet (12)

First term final revision

[1] Complete:

- (1) The place value of the digit 5 in the number 5 637 281 is
- (2) The value of the digit 6 in the number 5 637 281 is
- (3) The two diagonals are equal in length in and
- (4) The two diagonals are perpendicular in and
- (5) The two diagonals are perpendicular and not equal in
- (6) The two diagonals are equal and not perpendicular in
- (7) The common multiple for all numbers is
- (8) The smallest prim number is
- (9) The common factor for all numbers is
- (10) 3 dm = cm
- (11) 5 m = cm
- (12) 8 km = m
- (13) $7 \text{ dm}^2 = \dots\dots\dots \text{ cm}^2$
- (14) $4 \text{ m}^2 = \dots\dots\dots \text{ cm}^2$
- (15) The prime number has factors only.
- (16) The perimeter of rectangle = $(\dots\dots + \dots\dots) \times \dots\dots$
- (17) The perimeter of square = $\dots\dots \times \dots\dots$
- (18) The area of square = $\dots\dots \times \dots\dots$
- (19) The area of rectangle = $\dots\dots \times \dots\dots$
- (20) The perimeter of rectangle with dimensions 5cm and 3cm is
- (21) The area of square of side length 5 cm is cm^2
- (22) The area of rectangle with length 4 cm and width 2 cm is

- (23) The two diagonals of the parallelogram are
- (24) The number 501 is divisible by
- (25) In $\triangle ABC$, if $m(\angle A) = 30^\circ$ and $m(\angle B) = 40^\circ$, then $m(\angle C) = \dots\dots\dots^\circ$
- (26) 350 tens = hundreds.
- (27) The number whose prime factors are 2, 2 and 3 is
- (28) 2 356 421 + three hundred thousand =
- (29) 6 754 251 - 2 million =
- (30) All sides are equal in length in and
- (31) All angles are right in and
- (32) The polygon that has 4 sides is called
- (33) The triangle whose side lengths are 5cm, 3cm, 3cm is called
- (34) The triangle whose side lengths are 5cm, 3cm, 4cm is called
- (35) The triangle whose side lengths are 3cm, 3cm, 3cm is called
- (36) 35 millions, 27 thousands and 63 = in digits.
- (37) The smallest 7-digit number is
- (38) The prime numbers less than 20 are
- (39) The factors of 6 are
- (40) The prime factors of 6 are
- (41) Milliard is the smallest number formed from digits.
- (42) The two parallel lines never
- (43) The two lines that make four right angles are called
- (44) If the perimeter of square is 24cm, then its area = cm^2
- (45) $8 \times 23 \times 125 = \dots\dots\dots$
- (46) $4 \times 34 \times 25 = \dots\dots\dots$
- (47) The even prime number is
- (48) Any triangle has at least acute angles.

[2] Choose the correct answer:

- (1) The number is divisible by 3 [28 , 13 , 72]
(2) The number is divisible by 5 [45 , 49 , 22]
(3) The number is divisible by 2 [27 , 45 , 86]
(4) All numbers are divisible by 2 [odd , even , prime]
(5) $2525 \div 25 = \dots\dots\dots$ [11 , 101 , 110]

[3] Put (✓) for the correct statement and (×) for the incorrect one:

- (1) 5 and 6 are factors of the number 30 ()
(2) The number 7 has two factors only. ()
(3) The number 9 has two factors only. ()
(4) The smallest prime number is one. ()
(5) All prime numbers are odd. ()

[4] Factorize each of the following numbers to its prime factors:

12, 20, 30, 24, 360

[5] Find H.C.F. and L.C.M. for each group of the following numbers:

(1) 18 and 12

(2) 24 and 30

[6] Find the area and the perimeter for each of the following:

(1) A square of side length 5 cm.
 The area =
 The perimeter =

(2) A rectangle of dimensions 5cm and 4 cm.
 The area =
 The perimeter =

[7] Draw:

(1) The ΔABC in which $AB = 5$ cm,
 $m(\angle A) = 40^\circ$ and $m(\angle B) = 50^\circ$, then complete:

(a) $m(\angle C) = \dots\dots\dots^\circ$

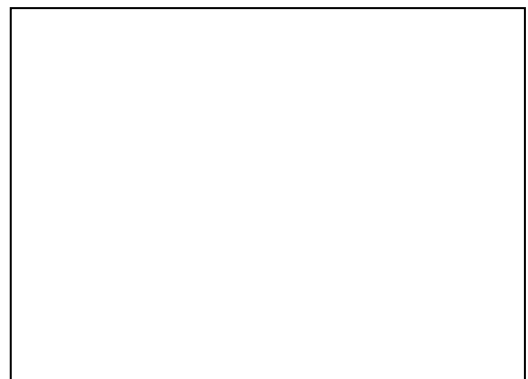
(b) The type of ΔABC according to the length of its sides is



(2) The ΔABC in which $AB = 8$ cm,
 $m(\angle A) = 90^\circ$ and $AC = 6$ cm, then complete:

(a) $BC = \dots\dots\dots$ cm

(b) The type of ΔABC according to the length of its sides is



[8] Story problems:

(1) If the price of one metre of cloth is 20 pounds, calculate the price of 13 metres of the same cloth.

(2) Eman bought 24 metres of cloth for 648 pounds. Find the price of one metre.

(3) 650 pupils in a primary school are distributed equally among 25 classes. Find the number of pupils in each class.

[9] Find the result:

(1) $608\ 467 - 129\ 585 = \dots\dots\dots$

(2) $510\ 309 + 7\ 489\ 691 = \dots\dots\dots$

(3) $585 \div 45 = \dots\dots\dots$

(4) $676 \div 13 = \dots\dots\dots$

(5) $1\ 404 \div 9 = \dots\dots\dots$

(6) $636 \div 12 = \dots\dots\dots$

(7) $960 \div 32 = \dots\dots\dots$

(8) $423 \times 25 = \dots\dots\dots$



[10] Find the H.C.F. and the L.C.M. for each of the following:

(1) $(2 \times 2 \times 3)$ and $(2 \times 3 \times 5)$

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.....

(2) $(2 \times 3 \times 3)$ and $(2 \times 2 \times 3)$

.....
.....

(3) $(2 \times 3 \times 5)$ and $(2 \times 2 \times 5)$

.....
.....