INTERNATIONAL INDIAN SCHOOL, DAMMAM

MATHEMATICS WORKSHEET – CLASS – VII (2017 – '18)

FRACTIONS AND DECIMALS

1. Solve: a) 8½ + 2¼ - $3\frac{1}{3}$ b) 7- $\frac{2}{3}$ + $\frac{2}{5}$
2. Find : a) $\frac{3}{4}$ x 5 (b) $\frac{5}{12}$ x 8 (c) $2\frac{2}{5}$ x $\frac{5}{18}$ (d) $3\frac{3}{8}$ x $3\frac{6}{7}$ (e) 4½ of 4 (f) ¾ of 6½
3. Find: a) 1÷ $\frac{2}{5}$ (b) 4½ ÷ $\frac{4}{9}$ (c) $2\frac{1}{3}$ ÷ 1¾ (d) $\frac{7}{9}$ ÷ 21 (e) $2\frac{2}{5}$ ÷ $1\frac{1}{10}$ (f) $5\frac{2}{3}$ ÷ 8
4. Sheela bought a cloth of length 7m. She cut 1½m for pant and 2¼ m for shirt. What is the length of remaining cloth.
5. A cyclist covers 4½ km in 1 hour. How far can he go in 3½ hours?
6. Guru bought 15kg of rice for Rs 97½ . What is the cost of 1kg of rice?
7. The product of two fractions is 16. If one of them is 3¾ ,find the other?
8. Find area of a square field whose side is 16½ m.
9. Express the following in the units given in brackets:
   (a) 55 paise (Rs) (b) 8Rs 40paise (Rs) (c)8m 5cm(m) (d)1078gm(kg)
   (e) 8kg 9gm (kg) (f) 7mm (cm, m, km)
10. Find : a)11.2 x 0.12 (b) 218.17 x 4 (c) 100.01 x 10.1 (d)0.5x0.006 (e)4.9x5.6
11. Find : a) 27 ÷ 0.003 (b) 123.321÷ 1.1 (c) 16.5 ÷0.15 (d) 8.64÷6(e) 5.065÷0.05
12. Multiply each of the following numbers by 10,100 and 1000:

    (a) 3.9 (b) 2.89 (c) 0.089 (d) 40.3 (e) 0.3745
13. Divide each of the following numbers by 10,100 and 1000:

    (a)59.79 (b) 923 (c) 40.3 (d) 943.3 (e) 5405.81
14. A train covers 330.50 km in 2.5 hours. What is the distance covered by it in 1 hour ?
15. If one drum can hold 15.75 litres of oil, how many litres can 35 such drums hold .
16. The product of 2 decimals is 131.58.If one of the numbers is 11.2, find the other.
17. If 15.25m of cloth cost Rs.7625. Find the cost of 1m of cloth. Also find the cost of 2.5m of same cloth.
18. A 84m long string is cut into pieces each of length 5¼ m. How many pieces are obtained.
19. Which is greater : $\frac{1}{4}$ of $\frac{8}{7}$ or $\frac{4}{9}$ or $\frac{6}{8}$

INTERNATIONAL INDIAN SCHOOL - DAMMAM

MATHEMATICS WORK SHEET - 2017 – 18

STD - VII CHAPTER - SIMPLE EQUATIONS

I) Write equations for the following statements

a) The sum of twice a number and 4 is 18

b) Mohan is 3 years older than Sohan. The sum of their ages is 43 years.

c) 11 is taken away from 3 times of x and the result is 22

d) Twice a number subtracted from 18 gives 0

II) Solve the following equations

a) $-\frac{m}{3} = 2$

b) $2p - 1 = 23 + p$

c) $2x - \frac{1}{3} = \frac{1}{6} - x$

d) $3(2x - 1) = 5(x - 1)$

e) $\frac{2m}{3} - \frac{m}{4} = 10$

f) $5(2x - 1) = 14 - 3(x + 2)$

g) $80 - 5(y - 1) = 0$

h) $-16 = -4(2 - x)$

i) $7x - 15 = \frac{19}{2}$

III) Construct 3 equations starting with x = -4

IV) Check whether the value given in the bracket is a solution to the given equation or not

a) $5x + 2 = 0$ $(x = 2/5)$

b) $m - 5 = -12$ $(m = -17)$

c) $4p - 3 = 13$ $(p = -4)$

V) Solve the following

a) If 45 is added to half a number, the result is triple the number. Find the number.

b) 7 times a number is 12 less than 13 times the same number. Find the number.

c) The age of Sohan Lal is 4 times that of his son Amit. If the difference of their ages is 27 years, find the age of Amit.

d) The length of a rectangle is 2 times its breadth. The perimeter of the rectangle is 180cm. find the length and breadth of the rectangle.

e) A number when added to its half gives 72. Find the number.

f) Each of two equal sides of an isosceles triangle is twice as large as the third side. If the perimeter of the triangle is 30cm find the length of each side of the triangle.

g) In a class of 49 students, the number of girls is 1/6 times the number of boys. Find the number of boys and girls in the class.

h) Tanya will be 4 times her present age after 15 years. How old is she now?

INTERNATIONAL INDIAN SCHOOL-DAMMAM

DATA HANDLING –WORKSHEET (2017-18) CLASS-VII

1. Find the mean of first five prime numbers.

2. Find the mean of the first ten even natural numbers.

3. If x, y, z be three observations. Find the mean of these observations.

4. The median of observations 11, 12, 14, 18, x + 2, 20, 22, 25, 61 arranged in ascending order is 21. Find the value of x.

5. Find the probability of getting a number greater than 2 on throwing a die once

6. The mode of the observations 23, 26, 15, 12, 28, 38, 19, 23, 26, 23 is

7. The cards bearing letters of the word "MATHEMATICS" are placed in a bag. A card is taken out from the bag without looking into the bag (at random).
   (a) How many outcomes are possible when a letter is taken out of the bag at random?
   (b) What is the probability of getting (i) M? (ii) Any vowel? (iii) Any consonant? (iv) X?

8. If the mean of 26, 28, 25, x, 24 is 27, find the value of x.

9. Given below are heights of 15 boys of a class measured in cm:
   128, 144, 146, 143, 136, 142, 138, 129, 140, 152, 144, 140, 150, 142, 154. Find
   (a) The height of the tallest boy. (b) The height of the shortest boy.
   (c) The range of the given data. (d) The median height of the boys.

10. The marks in a subject for 12 students are as follows:
    31, 37, 35, 38, 42, 23, 17, 18, 35, 25, 35, 29
    For the given data, find the (a) Range (b) Mean (c) Median (d) Mode

11. Find the mode of the following data
    13, 12, 15, 20, 25, 22, 18, 12, 25, 19, 12, 15, 17, 18,13, 16, 18, 22, 25, 16, 18, 25,22, 13, 15, 17, 22, 15, 22, 17, 18 ,22, 18, 20

12. The table below gives the data of tourists visiting 5 hill stations over two consecutive years. Study the table and answer the questions that follow:

Hill stations	Nainital	Shimla	Manali	Mussoorie	Kullu
2008	4000	5200	3700	5800	3500
2009	4800	4500	4200	6200	4600

(a) Draw a double bar graph to depict the above information using appropriate scale.

13. The data given below shows the production of motor bikes in a factory for some months of two consecutive years.

Months	Feb	May	August	October	December
2008	2700	3200	6000	5000	4200
2007	2800	4500	4800	4800	5200

Study the table given above and answer the following questions:

(a) Draw a double bar graph using appropriate scale to depict the above information and compare them.

(b) In which year was the total output the maximum?

(c) Find the mean production for the year 2007.

(d) For which month was the difference between the production for the two years the maximum?

(e) In which month for the year 2008, the production was the maximum?

(f) In which month for the year 2007, the production was the least?

14. Observe the following data:

Government School, Chandpur		
Daily Attendance		**Date : 15.4.2009**
Class	**Total Students**	**Number of Students Present on that Day**
VI	90	81
VII	82	76
VIII	95	91
IX	70	65
X	63	62

(a) Draw a double bar graph choosing an appropriate scale. What do you infer from the bar graph?

(b) Which class has the maximum number of students?

(c) In which class, the difference of total students and number of students present is minimum?

(d) Find the ratio of number of students present to the total number of students of Class IX.

(e) What per cent of Class VI students were absent?

15. In a public library, the following observations were recorded by the librarian in a particular week:

Days	Mon	Tues	Wed	Thurs	Fri	Sat
Newspaper Readers	400	600	350	550	500	350
Magazine Readers	150	100	200	300	250	200

(a) Draw a double bar graph choosing an appropriate scale.

(b) On which day, the number of readers in the library was maximum?

(c) What is the mean number of magazine readers?

16. Study the double bar graph given below and answer the questions that follow:

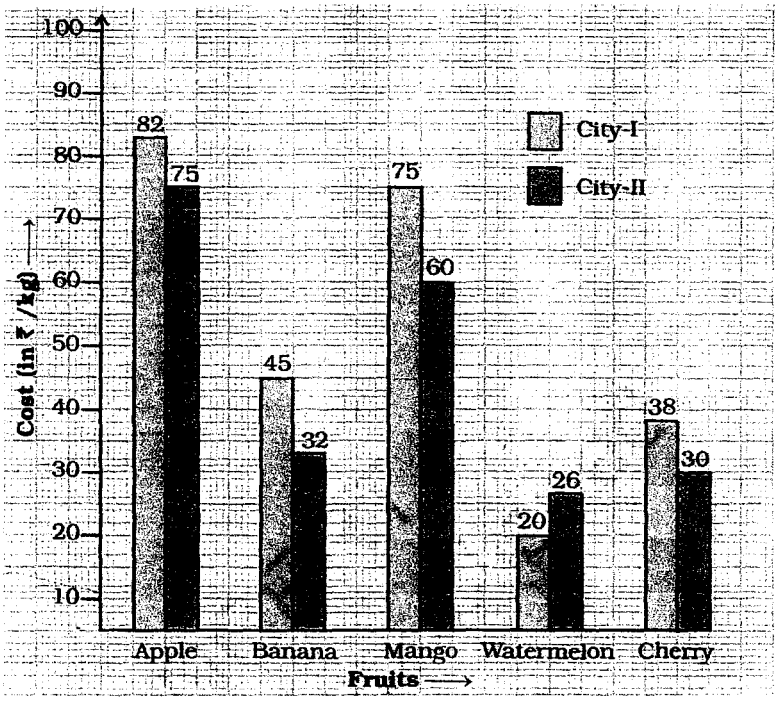


Fig. 3.1

(a) What information does the above double graph depict?

(b) Name the fruits for which cost of 1 kg is greater in City I as compared to City II.

(c) What is the difference of rates for apples in both the cities?

(d) Find the ratio of the cost of mangoes per kg in City I to the cost of mangoes per kg in City II.

17. Study the double bar graphs given below and answer the following questions:

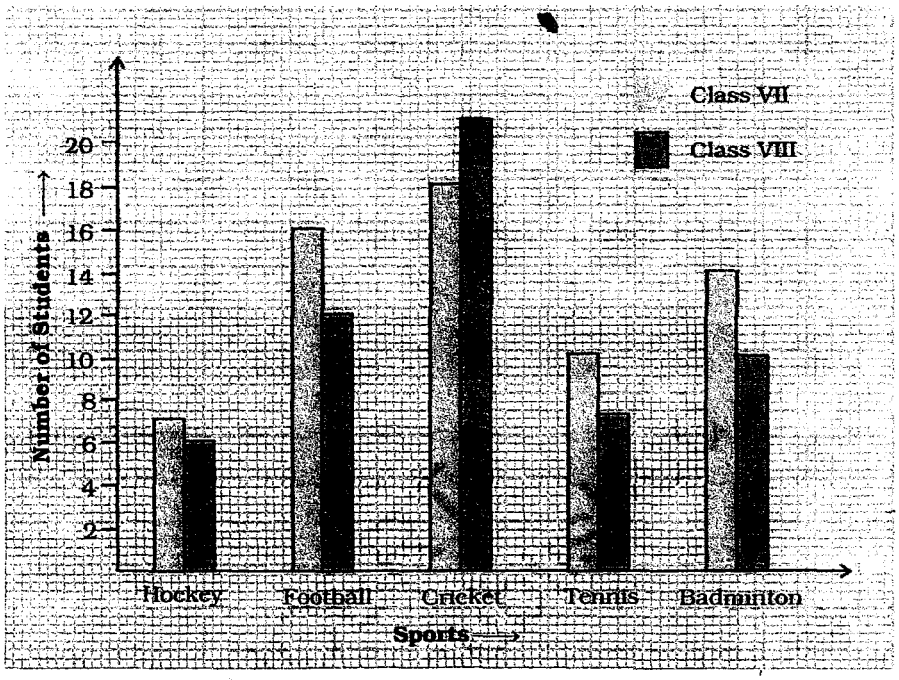


Fig. 3.11

(a) Which sport is liked the most by Class VIII students?

(b) How many students of Class VII like Hockey and Tennis in all?

(c) How many students are there in Class VII?

(d) For which sport is the number of students of Class VII less than that of Class VIII?

(e) For how many sports students of Class VIII are less than Class VII?

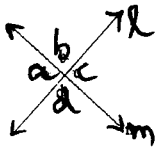
(f) Find the ratio of students who like Badminton in Class VII to students who like Tennis in Class VIII.

INTERNATIONAL INDIAN SCHOOL , DAMMAM

Mathematics worksheet Grade-7

LINES AND ANGLES.

1. The angle between North and East and North and West form _____ pair of angles. (Allied, Complementary, Supplementary)
2. Out of a pair of complementary angles one is $\frac{2}{7}^{th}$ of the other. Find the angles.
3. Find the measure of an angle whose complement is 79^0 .
4. Angles ($x - 10^0$) and ($190^0 - x$) form _____ pair of angles.
5. Lines 'l' and 'm' intersect at a point. Which of the following is false?



(i) a=c (ii) a=d (iii) b=d (iv) $a+d=180^0$. fig:1

6. In the figure (fig :2), CD intersects AB at F. $\angle CFB = 50^0$ and $\angle EFA = \angle AFD$. Find the measure of EFC.

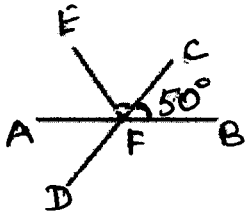


fig:2

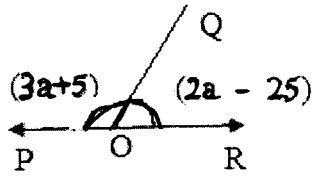
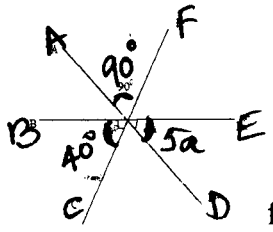


fig:3

7. Find 'a' if POR is a line in the figure 3.
8. Find the measure of an angle which is four times its supplement.
9. If the complement of an angle is 62^0, find its supplement.
10. The difference between two supplementary angles is 40^0. Find the angles.
11. Two complementary angles are in the ratio 4:5. Find the greater of the two angles.



12. Find the value of 'a' from figure 4. fig:4
13. Which of the following form adjacent angles?Give reason.

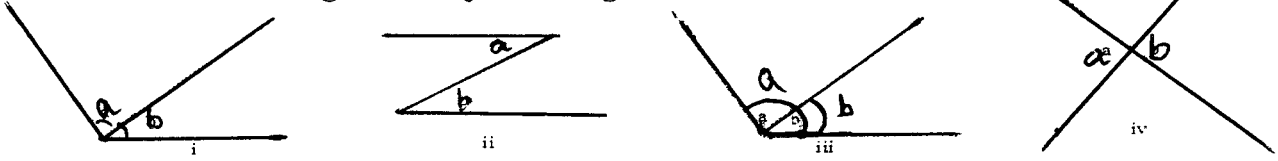


fig:5

14. In fig: 6 PQ is parallel to ST and OR is the transversal. If a:b is in the ratio 3:2, find 'e'.

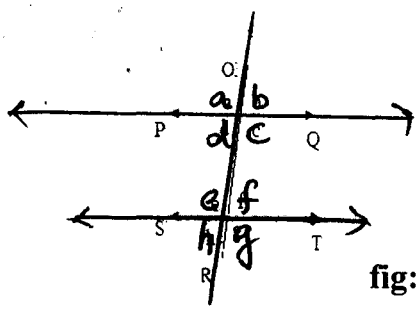


fig:6

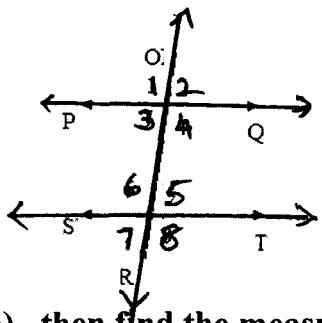


fig:7

14.In fig:7 PQ is parallel to ST.If $\angle 1 = (2a+b)$ and $\angle 6 = (3a - b)$, then find the measure of $\angle 2$ in terms of b.

15. Write all pairs of supplementary angles in figure 8.

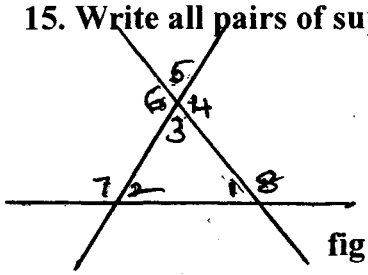


fig:8

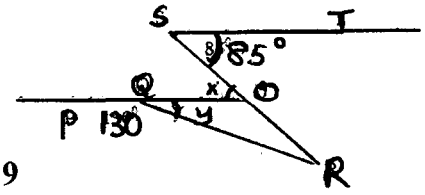


fig:9

16, In fig:9, PQ is parallel to ST. Find the value of x+y .

17. In fig:10, PQ and ST intersect at O. If angle PQR $= 90^0$ and x:y = 3:2, find z.

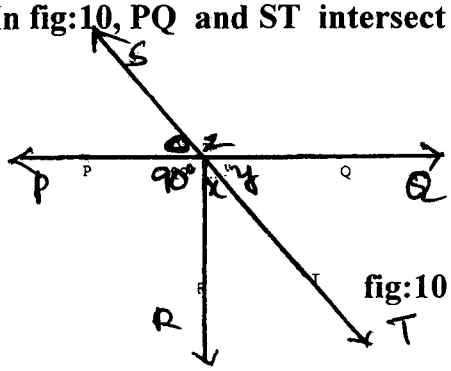


fig:10

INTERNATIONAL INDIAN SCHOOL –DAMMAM

MATHEMATICS WORKSHEET 2017-2018

Class: VII PRACTICAL GEOMETRY

1) Construct ΔABC given $m\angle A=60^\circ$, $m\angle C=30^\circ$ and AB=6.3cm
2) Construct a ΔDEF such that DE=6cm ,DF=4cm and $m\angle EDF= 80^\circ$
3) Construct an isosceles triangle in which the length of each of its equal side is 7cm and the angle between them is 100°
4) Construct a right-angled triangle PQR where $m\angle Q=90^\circ$, QR= 8cm and PR=10cm
5) Draw a parallel line for the line segment AB=6cm using ruler and compass
6) Construct ΔXYZ ,XY=6cm ,$\angle X=100^\circ$ and $\angle Z=20^\circ$
7) Construct a rhombus with side 4.5cm and one diagonal 6cm
8) Construct a quadrilateral ABCD in which AB=4.5cm ,BC=4cm, CD=6.5cm ,DA=3cm and BD=6.5cm
9) Construct a right angled triangle PQR ,PQ=QR=5cm and $\angle PQR=90^\circ$ measure $\angle QPR$ and $\angle QRP$
10) Construct ΔABC in which AB=5.3cm, BC=4.8cm and AC= 7.2cm
11) Draw a line segment PQ= 4.5cm . Take a point A below PQ . Using ruler and compass draw a line parallel to PQ which passes through A
12) Draw a line AB of length 6 cm .Take any point P on it and draw perpendicular at P , on this perpendicular take a point Q on it and from Q draw a perpendicular QR .What can you say about AB and QR
13) Draw a line AB of length 5cm and draw a line PQ parallel toAB at a distance of 3 cm from AB
14) Is it possible to construct ΔABC in which AB = 6cm $\angle A=105^\circ$ and $\angle B=85^\circ$. If not why?
15) Construct an equilateral triangle of side 6.5cm

INTERNATIONAL INDIAN SCHOOL – DAMMAM

MATHS WORK SHEET 2017 – 2018 CLASS VII

EXPONENTS AND POWERS

1.a) Write 9x9x9x9x9 in exponential form taking base as 3.

b) Write 8x8x8x8 in exponential form taking base as 2.

2) Simplify

a) $(2^5 \times 2)^2$ b) $(3^{18} \div 3^{14}) \times 3^6$ c) $(5^2 \times 5^7)^2 \div 5^8$

3) Simplify

a) $(-1)^5 \times (-2)^3$ b) $(-2)^4 \times (-10)^2$ c) $(-3)^3 \times (-5)^2$

4) Express each of the following in exponential form

a) $\frac{64}{729}$ b) $\frac{125}{8}$ c) 135 X 125 d) 216 X 392 e) 625X64X125

5) Find the values of $(2^3)^2$ and $(3^2)^2$ which is greater?

6) Simplify

a) $3^0 + 4^0 + 5^0 + 6^0$ b) $(3^0 + 4^0) - (5^0 + 6^0)$ c) $(7^0 \times 5^0 \times 3^0) + (2^0 \times 3^0)$ d) $(2^0 + 4^0) \div 2$

7) Simplify

a) $\frac{4 \times 3^4 \times 2^3}{2 \times 2^5}$ b) $\frac{3^7 \times a^5}{9^2 \times a^3}$ c) $\frac{9^3 \times a^5 \times b^2}{3^6 \times a^3 \times b}$ d) $\frac{2^3 \times 8^2 \times 3^5}{27 \times 36}$ e) $\frac{3^5 \times 10^5 \times 25^2}{5^7 \times 6^5}$

8) Express the following numbers in standard form

a) 567.30 b) 14696000000 c) 7950000 d) 15010000

9) Write the following numbers in expanded form

a) 900045 b) 724904 c) 429187 d)295020

10) Write in usual form

a) $4 \times 10^4 + 7 \times 10^3 + 8 \times 10^2 + 6 \times 10^0$

b) $9 \times 10^5 + 3 \times 10^2 + 9 \times 10^1 + 5 \times 10^0$