GMS

INTERNATIONAL INDIAN SCHOOL – DAMMAM
MATHEMATICS WORKSHEET - 2017 – '18
CLASS VIII – PLAYING WITH NUMBERS

Divisibility test :

A number is divisible by

(i) 2 , if the one's digit of the number is 0,2,4,6 or 8.

(ii) 3, if the sum of the digits is divisible by 3.

(iii) 5 , if the one's digit is 0 or 5 .

(iv) 10, if the one' s digit is 0 .

(v) 9 , if the sum of the digits is divisible by 9

1. Check the divisibility of 39487362 by (a) 2 (b) 3 (c) 9
2. What may be the values of y for which each of the following numbers is exactly divisible by 3? (y can have more than one value) (a) 6y07 (b) 15y 95 (c) 5y228
3. Write the smallest value of x for which each of the following numbers are completely divisible by 9? (i) 23x (ii) x543 (iii) 5x29 ((iv) 3276x
4. If 3275p is a multiple of 5, where p is a digit , what could be the value of p ?
5. If 37x07 is divisible by 9, find the value of x.
6. Write down all possible three digit numbers using the digits 4, 9, 0, 5 without repetition. Which of these numbers are divisible by (i) 3 ? (ii) 5 ? (iii) 10 ?
7. **State TRUE / FALSE**
   a) 41392 is divisible by 9
   b) 7524 is divisible by 2
   c) 1233312 is divisible by 3
   d) 5492735 is divisible by 10
   e) 21420 is divisible by 5

8. Check whether these numbers are divisible by (a) 5 (b) 10 ?

   (i) 44130 (ii) 68235 (iii) 21867 (iv) 403200 (v) 7555

INTERNATIONAL INDIAN SCHOOL, DAMMAM

MATHEMATICS WORKSHEET [2017 – '18]

CLASS – VIII CHAPTER – 1 – RATIONAL NUMBERS

1. Find the additive inverse of the following :
   (a) $\frac{-3}{11}$, (b) $\frac{2}{7}$, (c) 5.
2. Find the multiplicative inverse of the following :
   (a) -2 , (b) $\frac{-9}{11}$, (c) $\frac{5}{9}$.
3. Simplify $\frac{2}{7} \text{ X } \{ \frac{1}{4} + \frac{3}{8} \}$ using distributive property.
4. Multiply the additive inverse of $\frac{-3}{5}$ with the reciprocal of $\frac{6}{25}$.
5. Name the property under addition used in each of the following :
   (a) $\frac{-3}{5} + \frac{5}{2} = \frac{5}{2} + \frac{-3}{5}$
   (b) -7 + 2 = 5, an integer.
   (c) $\frac{-7}{5} + 0 = 0 + \frac{-7}{5} = \frac{-7}{5}$
   (d) $\frac{4}{9} + [\frac{3}{5} + \frac{-1}{7}] = [\frac{4}{9} + \frac{3}{5}] + (\frac{-1}{7})$
6. Name the property under multiplication used in each of the following :
   (a) $\frac{-13}{9} \text{ X } \frac{4}{7} = \frac{4}{7} \text{ X } \frac{-13}{9}$
   (b) 13 X 7 = 91, an integer.
   (c) $\frac{-7}{5} \text{ X } 1 = 1 \text{ X } \frac{-7}{5} = \frac{-7}{5}$
   (d) $\frac{3}{7} \text{ X } [\frac{2}{5} \text{ X } \frac{4}{9}] = [\frac{3}{7} \text{ X } \frac{2}{5}] \text{ X } \frac{4}{9}$
7. Simplify using properties:
   (a) $\frac{2}{5} \text{ X } \frac{1}{6} - \frac{1}{12} + \frac{2}{5} \text{ X } \frac{2}{3}$
   (b) $\frac{1}{7} \text{ X } \frac{2}{9} - \frac{3}{14} \text{ X } \frac{1}{9} + \frac{2}{9} \text{ X } \frac{1}{14}$
   (c) $\frac{6}{7} \text{ X } \frac{49}{18} - \frac{7}{3} \text{ X } \frac{1}{49} + \frac{6}{7} \text{ X } \frac{1}{18}$
   (d) $\frac{4}{7} \text{ X } \frac{2}{5} + \frac{3}{7} \text{ X } \frac{2}{5} + \frac{2}{5} \text{ X } \frac{1}{7}$

8. Name :
   (a) a positive number which is its own reciprocal.
   (b) a negative number which is its own reciprocal.
   (c) a number which has no reciprocal.
9. Represent the following rational numbers on a number line :
   (a)) $\frac{4}{7}, \frac{6}{7}, \frac{-3}{7}, \frac{-5}{7}$
   (b) $\frac{1}{11}, \frac{5}{11}, \frac{-8}{11}, \frac{-9}{11}$.
10. Find four rational numbers between (- 3) and (- 1)
11. Find five rational numbers between $\frac{-1}{5}$ and $\frac{3}{8}$.
12. Find seven rational numbers between $\frac{1}{4}$ and $\frac{2}{3}$.
13. Write 10 rational numbers greater than (- 4).
14. Write five rational numbers less than 1.
15. Evaluate :
   (a) $\frac{3}{5} + \frac{-9}{10} + \frac{-11}{15} + \frac{2}{25}$
   (b) $(\frac{-3}{7}) \times \frac{2}{5} \times \frac{1}{9} \times \frac{15}{16}$

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INTERNATIONAL INDIAN SCHOOL, DAMAMM

MATHEMATICS WORKSHEET (2017-18)

CLASS:VIII **CH: LINEAR EQUATIONS IN ONE VARIABLE**

Solve the following equations

1. $3x-5(2x+7) = 3(4x-1)+\frac{5}{2}$ Ans: $(x= -\frac{69}{38})$

2. $\frac{3x-4}{4} = 8$ Ans: (x=12)

3. $\frac{x}{4} - \frac{1}{3} = \frac{1}{4} - \frac{x}{10}$ Ans: (x=5/3)

4. $\frac{2x}{5} = \frac{8}{7}$ Ans: (x=20/7)

5. $2(x+3) = 8-3(x-4)$ Ans: (x=14/5)

6. $\frac{2-x}{x-5} = \frac{3}{7}$ Ans: $(x= \frac{29}{10})$

7. $\frac{4x-3}{2x+1} = \frac{6x-4}{3x+2}$ Ans: (x=2)

8. The sum of three consecutive odd numbers is 87.Find the numbers. (Ans:27,29,31)
9. The sum of the digits of a two digit number is 13.The number formed by interchanging the digits is 45 more than the original number.Find the original number. (ans:49)
10. The denominator of a fraction is 4 more than the numerator.If the numerator is increased by 2 and the denominator is increased by 5,the fraction is 5/12. (Ans:3/7)
11. Sixteen years from now Gopi's age will be five times his present age. What is his present age? (ans:4 years)

12.Three times a number decreased by 5 gives the result 16.find the number.
(Ans:7)

13.A number is added to the 2/5 th of itself.If the sum is 140,find the number

(Ans: 100)

14.The present age of the father is twice the present age of his son.8 years later their ages will be in the ratio 7:4.Find the present age of the son.
(Ans:24 years)

15.The perimeter of a rectangle is 9 times its breadth and its length is 3cm more than twice its breadth. Find the dimensions of the rectangle.
(Ans: l=7cm ,b=2cm)

INTERNATIONAL INDIAN SCHOOL, DAMMAM
MATHS WORKSHEET 2017 – 18
CLASS VIII DATA HANDLING

1. _____ gives the number of times that a particular entry occurs in a data.

2. A _____ is the graphical representation that shows the relationship between a whole and its part.

3. The difference between the upper class limit and the lower class limit is called _____ of the class interval.

4. A _____ is one whose outcome cannot be predicted exactly in advance.

5. The upper limit of the class interval 50 – 60 is _____

6. Width or size of class 100 – 150 is _____

7. List the outcomes.
   a) Tossing a pair of coins.
   b) Getting an odd number when a dice thrown.

8. Find the probability of :
   a) Getting a card of spade from a pack of well-shuffled pack of cards.
   b) A card drawn is a king.

9. The weights (in kg.) of 50 students are given below.

60	41	30	53	59	54	43	70	69	56	43	55	39	63	41	51	32
53	47	78	40	54	52	46	55	58	38	51	42	59	68	45	33	49
77	47	37	30	48	44	53	66	35	79	58	61	49	49	50	51	

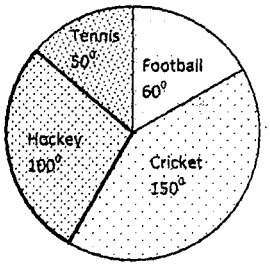
   a) Make a frequency distribution table with class interval of size 10.
   b) Make a histogram to represent the data.

10. Draw a histogram for the following grouped frequency distribution table.

Marks	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
No of Students	2	10	21	19	8

   a) How many students got marks 30 and above?
   b) If the passing mark is 20, how many students failed?

11. The pie-chart given below shows the amount spent by a sports club in a year, on four different sports



a) If the club spends a total of Rs. 1,08,000 in a year , find the amount spent in each sport?
b) On which sport item the expenditure is maximum?
c) If the club spent Rs. 20,000 on hockey in a year, find the total amount spent by the club on sports in a year?

12. The numbers of students admitted to different departments of a college are given below.

Science	Arts	Commerce	Law	Comp. Sc.
320	560	320	160	240

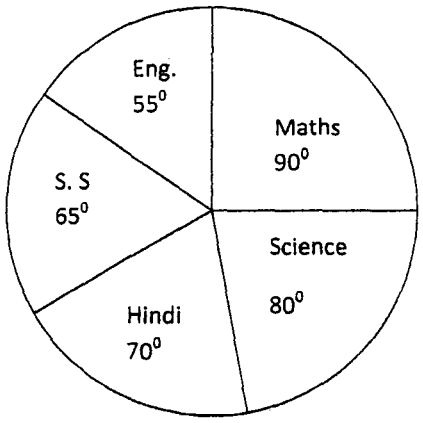
Draw a pie-diagram for the data.

13. The following data shows the expenditure pattern in a family. Dra a pie-chart.

Items	Food	Clothing	Rent	Education	Health	Miscellaneous
Expenditure (in percent)	40%	20%	10%	10%	5%	15%

14. A bag contains 4 red, 5 black and 6 white balls. A ball is drawn from the bag at random. Find the probability that the ball drawn is
a) White b) red c) not black d) red or white

15. The following pie-chard gives the marks scored in an examination by a student in various subjects. If the total marks obtained by the student were 540, answer the following questions.



a) In which subject did the student score 105 marks?
b) How many more marks were obtained by the student in Mathematics than in Hindi?
c) Examine whether the sum of marks obtained in Social science and Mathematics is more than that in Science and Hindi.

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INTERNATIONAL INDIAN SCHOOL, DAMMAM

MATHEMATICS WORKSHEET (2017-18), GRADE: VIII

ALGEBRAIC EXPRESSIONS AND IDENTITIES

1. Classify the following expressions as monomial, binomial, trinomial and polynomial.

   $3x+2y$, $5y^2$, $6pq-9q+10$, $12m^2-9mn+10n^2-15$, $21pq$, $5a-2b$, $7k-4m+9k+17$,

   $35xyz$, $28a^2b-31ab^2$, $5c+10d-20$, $11k^3+13k^2-17k-19$, $23pqr$

2. Identify terms and coefficients of each term of the expression: $11a^2b-9ab^2+7ab+12a-1$

3. Add the following:

   a) $10-7x^2$ and $8x^2-3x-10$

   b) $4m(m+n)$, $2m(n-2m)$ and $m(m+2n)$

   c) $5pqr^2+7pq^2r+25$ and $5pqr(2r+q-3)$

   d) $a(a-3)$, $a^2(a+2)$ and $2a(a-5)$

4. Subtract the following:

   a) $2l(3m+2n)$ from $2m(2l+2n)$

   b) $7a^2-5b+1$ from $15a^2+8b-1$

   c) $5a(a+5)$ from $a(3+a)-a^2(a-2)$

   d) $11p(7q+5r)$ from $4q(8p+9r)$

5. The adjacent sides of a rectangle are $3x-2y+6$ and $-5x+7y+2$. Find its perimeter.

6. The length, breadth and height of a cuboidal box are $3l$, $5l^2$ and $7l^3$ respectively. Find its Volume.

7. Find the area of a triangle whose base and altitude are $11a$ and $2a-3b$ respectively.

8. What must be subtracted from $10a^2-15ab+3b+1$ to get $3a^2-2ab+b+5$

9. Find the product :

   a) $a^2 \times b^2 \times (ab)^2 \times (ab)^3$

b) $-5p^2$ and $3pq + q^2$

c) $-xy$, $-x^2y^2$ and $2x^2y^2$

d) $5c + 3d$ and $3c + 5d$

e) $7m^2n^2$ and $6m^2 - 2mn - 3n^2$

10. Simplify the following expressions and find their values.

a) $3a(a-b) - 2b(b-a)$ when $a = 2$ and $b = -1$

b) $(a+b)(b-a) + (a-b)(a+b)$ when $a = -2$ and $b = 1$

c) $(p+q)(2p+q) + (p+2q)(p-q)$ when $p = 3$ and $q = 2$

11. Simplify:

a) $(l^2 + m^2)(l - m)$

b) $(a+b+c)(a+b) - (a-b)(a+b-c)$

c) $(y+1)(x^2+2y) - (y+1)(x^2+3y-2)$

d) $(k^2+3)(k^2-3) + 9$

12. Using Identities evaluate the following:

a) 102×103 b) 98×97 c) 105^2 d) 5.2×4.8

e) $82^2 - 18^2$ f) 10.6×9.4 g) 997^2 h) 103×97

13. From the sum of $8a + 7b$ and $6a^2 - 4ab + 2b^2$, subtract the sum of $4a^2 + 3a + 2b$ and $2a(a-2b) + 1$

14. The side of a square is $2x + 3y$ cm. Find its area.

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INTERNATIONAL INDIAN SCHOOL, DAMMAM

MATHEMATICS WORKSHEET [2017 – '18]

CLASS – VIII

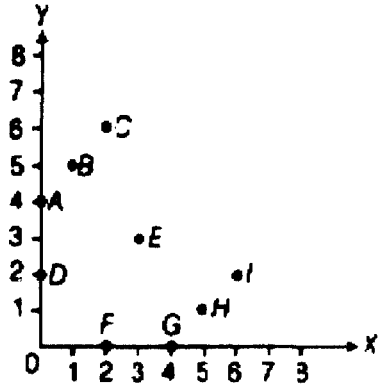
CHAPTER – 12 – INTRODUCTION TO GRAPHS

1. (a) A graph which displays data that changes continuously over periods of time is called ------ graph.
   (b) A point which lies on both the axes is ------
   (c) The coordinates of a point at a distance of 3 units from the x axis and 6 units from the y axis is ------
   (d) The distance of any point from the y axis is ----- coordinate.
   (e) All the points with y coordinate as zero lie on the ----- axis.
   (f) The x – coordinate of any point lying on the y axis will be ----- .
   (g) For the point (5,2) the distance from the x – axis is ----- units.
   (h) The y coordinate of the point (2,4) is ----- .
   (i) In the point (4,7) , 4 denotes the ----- coordinate.
   (j) The distance of any point from the x – axis is ----- coordinate.

2. Match the coordinates given in column A with the items mentioned in column B.

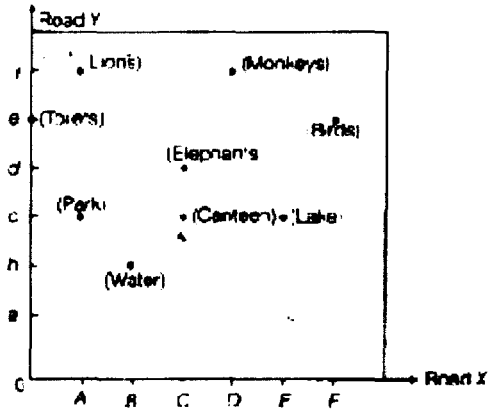
Column A		Column B	
a	(0,5)	i	Y coordinate is 2times x coordinate + 1
b	(2,3)	ii	Coordinates of origin
c	(4,8)	iii	Only y coordinate is zero
d	(3,7)	iv	The distance from x axis is 5
e	(0,0)	v	Y coordinate is double of the x coordinate
f	(5,0)	vi	The distance from y axis is 2

3. Write the coordinates of the given points.



4. Plot the following points on a graph sheet.
   A(5,4), B(2,0), C(3,1), D(0,4), E(4,5)

5. Study the given map of the zoo and answer the following questions.



(a) Give the location of lions in the zoo.
(b) (D,f) and (C,d) represent locations of which animals in the zoo.
(c) Where are the toilets located?
(d) Give the location of canteen.

6. Write the x coordinate (abscissa) and y coordinate (ordinate) of each of the given points.
A (7,3) ,B (5,7) , C(0,5) ,D(3,5), E(4,0), F(2,7)

7. Plot the given points on a graph sheet and check if the points lie on a straight line. If not, name the shape they form when joined in the given order.
(a) (1,2) ,(2,4), (3,6) , (4,8)
(b) (1,4), (1,2), (2,1), (2,2)
(c) (4,2), (2,4), (3,3), (5,4)

8. (a) If y coordinate is 3 times the x coordinate, form a table for it and draw the graph.
(b) The cost of a note book is Rs.10. Draw a graph after making a table showing the cost of 2,3,4,... notebooks .
Use it to find
(i) The cost of 7 notebooks.
(ii) The number of notebooks that can be purchased with Rs.50.

9. Make a line graph for the area of a square as per the given table.
Is it a linear graph?

Side (in cm)	1	2	3	4
Area (in cm^2)	1	4	9	16

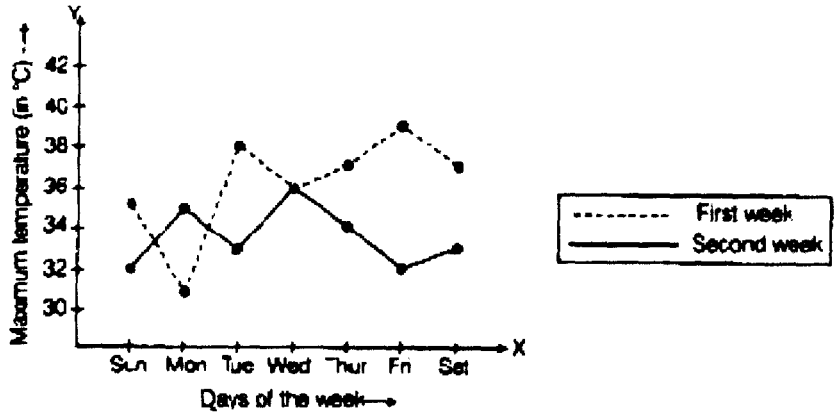
10. Complete the given tables and draw a graph for each.
(a)

x	0	1	2	3
y = 3x + 1	1	---	---	---

(b)

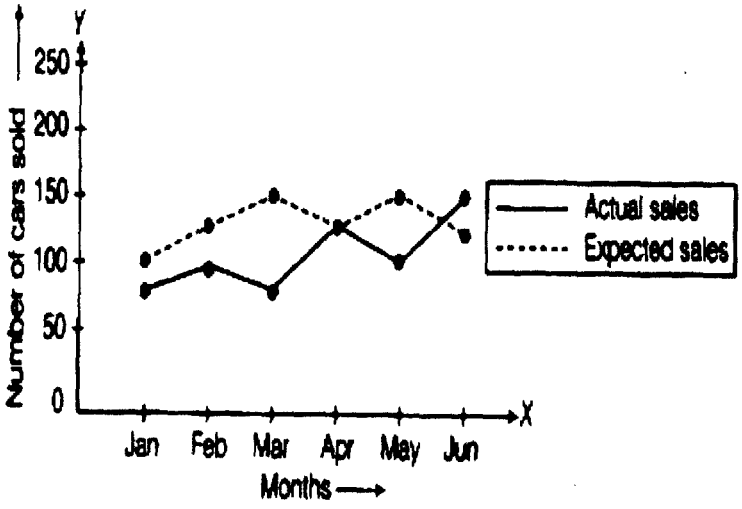
x	1	2	4	6
y = x – 1	0	---	---	---

11. The graph shows the maximum temperatures recorded for two consecutive weeks of a town. Study the graph and answer the questions that follow.



(a) What information is given by the two axes?
(b) In which week was the temperature higher on most of the days?
(c) On which day was the temperature same in both the weeks?
(d) On which day was the difference in temperatures the maximum for both the weeks?
(e) What was the temperature for both the weeks on Thursday?
(f) On which day was the temperature 35°C for the first week?
(g) On which day was the temperature highest for the second week?

12. The graph given below gives the actual and expected sales of cars of a company for 6 months. Study the graph and answer the questions that follow.



(a) In which month was the actual sale same as the expected sale?
(b) For which month(s) was(were) the difference in the actual and expected sale the maximum?
(c) For which month(s) was(were) the difference in the actual and expected sale the least?
(d) What was the total sale of the cars in the months – January, February and March?
(e) What is the average sale of cars in the last three months?
(f) Find the ratio of the sales in the first three months to the last three months.

13. The following table gives the growth chart of a child.

Height (in cm)	75	90	110	120	130
Age (in years)	2	4	6	8	10

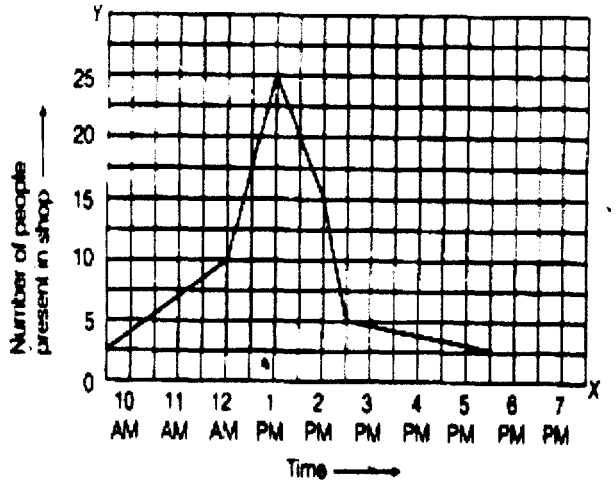
Draw a linear graph for the table and answer the questions that follow.

(a) What is the height at the age of 4 years?

(b) How much taller was the child at the age of 6 years?

(c) Between which two consecutive periods did the child grow faster?

14. The following graph shows the number of people present at a certain shop at different times. Observe the graph and answer the following questions.



(a) What type of a graph is this?

(b) What information does the graph give?

(c) What is the busiest time of the day at the shop?

(d) How many people enter the shop when it opens?

(e) About how many people are there in the shop at 1:30 PM?

15. The following table shows the data collected for Rohan's walking on a road.

Time (in minutes)	0	5	10	15	20	25
Distance (in km)	0	0.5	1	1.25	1.5	1.75

(a) Plot a line graph for the given data using suitable scale.

(b) In what time periods did Rohan make the most progress?

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INTERNATIONAL INDIAN SCHOOL, DAMMAM

MATHEMATICS WORKSHEET (2017 – 2018)

CLASS VIII EXPONENTS AND POWERS

1. Find the multiplicative inverse of the following
   i. 25^{-7} ii. 5^{-100} iii. $\left(\frac{-5}{9}\right)^{-99}$ iv. $\frac{1}{2^{-7}}$
2. Find the value of
   i. $\frac{1}{8^{-2}}$ ii. $\frac{5^2}{5^4}$ iii. 3^{-4}
3. Simplify:-
   i. $(3^0+5^0+7^0)^0$
   ii. $[(6^{-1})-(8^{-1})]^{-1}+[(2^{-1})-(3^{-1})]^{-1}$
4. Expand the following numbers using exponents
   i. 38792.15 ii. 92675.327 iii. 43.2576
5. Simplify and write the answer in the exponential form
   i. $(-2)^{-3}\times(-2)^2\times(-2)^{-5}$
   ii. $(a^3\times a^{-2}\times a^4)^{-2}$
6. Express 9^{-3} as a power with the base 3.
7. Using laws of exponents, simplify
   i. $[(3^{-2})-(-1)^{-3}]^{-1}$
   ii. $[(3)^{-1}+(4)^{-1}]^{-1}\div(5)^{-1}$
8. Find the value of
   i. $\left[\left(\frac{1}{3}\right)^{-2}+\left(\frac{1}{2}\right)^{-3}\right]\div\left(\frac{1}{4}\right)^{-2}$
   ii. $\left(\frac{9}{5}\right)^{-8}\times\left(\frac{5}{9}\right)^{-5}$
   iii. $(9^2-4^3)\times\left(\frac{-3}{17}\right)\times\frac{34}{9}$

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9. Find x, if

i. $\left(\frac{5}{2}\right)^{6-3x} = \left(\frac{8}{125}\right)^{2x-1}$

ii. $\left(\frac{2}{3}\right)^{-5} \times \left(\frac{2}{3}\right)^{12} = \left(\frac{2}{3}\right)^{3x-2}$

10. Simplify

i. $\frac{49 \times k^{-5}}{7^{-3} \times 10 \times k^{-9}}$ (k≠0)

ii. $\left[\left(\frac{-2}{3}\right)^{-2}\right]^{3} \times \left(\frac{1}{3}\right)^{-4} \times 3^{-1} \times \frac{1}{6}$

iii. $\frac{(3^{-2})^{2} \times (5^{2})^{-3} \times (m^{-3})^{2}}{(3^{-2})^{5} \times (5^{3})^{-2} \times (m^{-4})^{3}}$

11. Express the following numbers in standard form

i. 0.0000489 ii. $\frac{0.00352}{10^{6}}$ iii. 0.047

12. Express the following numbers in usual form

i. 8×10^{-6} ii. 3.08×10^{-5} iii. 3.81265×10^{7}

13. Express the number appearing in the following statements in standard form:-

i. An inch is approximately equal to 0.02543 m.
ii. A Helium atom has a diameter of 0.000000022 cm.
iii. Special balances can weigh something as 0.000001 gm.

14. Mass of Mars is $6.42 \times 10^{23}\ kg$ and mass of the Sunis $1.99 \times 10^{30} kg$. What the total mass is?

15. Planet A is at a distance of $9.35 \times 10^{6}\ km$ from Earth and planet B is $6.27 \times 10^{7}\ km$ from Earth. Which planet is nearer to Earth?

16. An electron's mass is approximately $9.1093826 \times 10^{-31}$ kilograms. What is its mass in grams?

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INTERNATIONAL INDIAN SCHOOL DAMMAM

MATHEMATICS WORKSHEET (2017-18)

CLASS: VIII MENSURATION

1. Find the area of the trapezium whose parallel sides are 12m and 8m long and the distance between the parallel sides is 6m?

2. Area of a trapezium is 144 cm^2 and its height is 12 cm. If one of the parallel sides is two times the other, find the two parallel sides?

3. A room is 10 m long, 5 m wide and 2 m high. It has 2 doors 2 m X 1m and 4 windows 1m x 1m. Find the cost of white washing its walls and ceiling at the rate of Rs7/ m^2?

4. The area of a trapezium is168 cm^2 and the distance between the parallel sides is 8cm. Find the length of the parallel sides if they are in the ratio 3; 4?

5. The radius and height of a cylinder are in the ratio 5 : 7 and its volume is 550cm^3. Find its radius.

6. The circumference of the base of a cylindrical vessel is 132 cm and its height is 25cm. How many litres of water can it hold?

7. The radii of two cylinders are in the ratio 2 : 3 and their heights are in the ratio 5 : 3. Find the ratio of their volumes?

8. CSA of a right circular cylinder of height 14 cm is 924 cm^2. Find the radius of its base?

9. A box which measures 70 cm x 36 cm x 12cm is to be covered with canvas. How many meters of canvas of width 80 cm would be required to cover 150 such boxes?

10. How many bricks are required to construct a wall 10 cm long, 4 dm wide and 3m high if each brick measures 25cm x 12 cm x 8cm?

11. The lateral surface of a hollow cylinder is 5220 cm^2. It is cut along its height and formed into a rectangular sheet of width 36 cm. Find the perimeter of the rectangular sheet?

12. Find the depth of a tank which has a rectangular base measuring 5m by 4m and holds as much milk as another tank whose dimensions are 8m by 5m by 4m.

13. Raj is painting the ceiling and walls of a cuboidal room with length, breadth and height of 20 m, 12 m and 10 m respectively. An area of 80 m^2 can be painted from each can. Find how many cans of paint will be required to paint the room?

14. Find the area of a rhombus whose side is 8cm and whose altitude is 5cm.If one of its diagonals is 10cm long, find the length of the other diagonal.

15. Find the capacity in litres of a cylindrical vessel open at the top whose diameter is 8.4 cm and depth is 20cm.

16. Find the cost of painting a wooden box which is in the shape of a cube of side 17 cm at the rate of 50 paisa per square cm.

17. The length of one of the diagonals of a field in the form of a quadrilateral is 50cm. The perpendicular distances of the other two vertices from this diagonal are 15cm and 17cm.

Find the area of the field?

18. Find the area of a rhombus whose diagonals are 8 cm and 14 cm long.

19. The floor of a rectangular hall has a perimeter of 250 m .If its height is 6 m , find the cost of painting its four walls at the rate of Rs 20 per m^2

20. A match box measures 5 cm x 3 cm x 2 cm. What will be the volume of a packet containing 12 such boxes.

21. The total surface area of a cube is 96 m^2. Find its volume.

22. Find the ratio of the TSA of cylinder to its CSA, given that its height and radius are 7.5 cm and 3.5 cm, respectively.

23. What will happen to volume of a cube, if its edge is (a) doubled? (b) Halved? (c) Tripled?

24.A rectangular water reservoir contains 24000 litres of water. The reservoir is 8m long and 3m wide. Find the height of water in the reservoir.

25. Find the surface area of a cube whose volume is 19683 m^3

26. A floral design on the floor of a building consists of 280 tiles. Each tile is in the shape of a parallelogram of height 3cm and base 5cm. Find the cost of polishing the design at Rs 1.50 per sq. cm.

27. A figure is in the form of a quadrilateral ABCD. Its area is 165 sq.cm. Find the length of the perpendicular drawn from D on AC if AC = 15 cm and length of perpendicular from B on AC is 12 cm.

28. Find the LSA, TSA and volume of a cube whose edge is 6m.

29. Find the cost of plastering a well with radius 2 m and depth 14 m @ Rs 23 per m^2.

30. The radius and height of a cylinder are 14 cm and 51 cm respectively. Find the volume, CSA and TSA of the cylinder.

INTERNATIONAL INDIAN SCHOOL – DAMMAM

MATHS WORK SHEET 2017 – 2018 CLASS VIII

PRACTICAL GEOMETRY

1) Construct a quadrilateral ABCD in which
AB = 4.2 cm, BC = 4 cm, CD = 6.2 cm DA = 2.8 cm, BD = 6.6 cm

2) Construct a rhombus HOPE where HO = 5 cm EO = 6.5 cm

3) Construct a quadrilateral PQRS where PQ = 4 cm, QR = 5.5 cm, QS = 4.5 cm, PS = 4.5 cm and SR = 4cm.

4) Construct a quadrilateral ABCD where AB = 5cm, BC = 4 cm, AD = 3cm, and BD = 5 cm.

5) Construct a rhombus whose diagonals are of length 7.5 cm and 8 cm.

6) Construct a square of side 4.5 cm

7) Construct a rectangle of adjacent sides 4.8 cm and 2.5 cm.

8) Construct a parallelogram KIND in which KI = 5.5 cm IN = 6.5 cm $\angle D = 120^0$

9) Construct a quadrilateral BEST in which BE = 5.5, ES = 4cm, $\angle B = 80^0$, $\angle E = 100$ and $\angle S = 90^0$

10) Construction a quadrilateral ABCD in which AB = BC = 4cm and AD = 5.5 cm $\angle A = 90^0$ and

$\angle B = 110^0$

11) Construct a rhombus whose diagonals are of length 9.6 cm and 10.2 cm

12) Construct a square of sides 5.8 cm.

13) Construct a parallelogram ABCD in which AB = 5cm, BC = 4.2 cm and $\angle A = 45^0$

14) Construct a quadrilateral 'FAST' in which FA = 6cm, AS = 4cm, F=75, $\angle A = 110^0$ and $\angle S = 60^0$

INDIAN INTERNATIONAL SCHOOL DAMMAM
WORKSHEET DIRECT AND INVERSE PROPORTIONS
CLASS VIII 2017 - 18

1. Fill in the blanks to make the statements true.

a)Amrita takes 18 hours to travel 720 kilometres. Time taken by her to travel 360 kilometres is ---

b) If x and y are inversely proportional then _____ = k where k is positive constant

c) Side of a rhombus and its perimeter are in _____ proportion.

2.State whether the statements are true (T) or false (F):

a) When two quantities x and y are in inverse proportion, then x /y is a constant.

b) If the cost of 10 pencils is Rs 90, then the cost of 19 pencils is Rs 171.

c) If 5 persons can finish a job in 10 days then one person will finish it in 2 days.

3. Solve the following questions.

i) In a scout camp, there is food provision for 300 cadets for 42 days. If 50 more persons join the camp, for how many days will the provision last?

ii) If two cardboard boxes occupy 500 cubic centimetres space, then how much space is required to keep 200 such boxes?

iii)Under the condition that the temperature remains constant, the volume of gas is inversely proportional to its pressure. If the volume of gas is 630 cubic centimetres at a pressure of 360 mm of mercury, then what will be the pressure of the gas if its volume is 720 cubic centimetres at the same temperature?

iv)Sobi types 108 words in 6 minutes. How many words would she type in half an hour?

v) It is given that l varies directly as m. (i) Write an equation which relates l and m. (ii) Find the constant of proportion (k), when l is 6 then m is 18. (iii) Find l, when m is 33.

vi) The students of Anju's class sold posters to raise money. Anju wanted to create a ratio for finding the amount of money her class would make for different numbers of posters sold. She knew they could raise Rs 250 for every 60 posters sold

(a) How much money would Anju's class make for selling 102 posters?

(b) Could Anju's class raise exactly Rs 2,000? If so, how many posters would they need to sell? If not, why?

vii) 30 men can reap a field in 17 days. If the field is to be reaped in 10 days then how many men will be required? How many extra men are to be employed?

viii)If x varies inversely as y and x = 20 when y = 600, find y when x = 400.

ix)The variable x varies directly as y and x = 80 when y is 160. What is y when x is 64?

x) In a camp, there is enough flour for 300 persons for 42 days. How long will the flour last if 20 more persons join the camp?

xi) A contractor undertook a contract to complete a part of a stadium in 9 months with a team of 560 persons. Later on, it was required to complete the job in 5 months. How many extra persons should he employ to complete the work?