Worksheet-2
Annual Examination-2018-2019

Subject-Mathematics

Class-8   **Block 26,27,28**
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Block 26-Laws of Exponents

1. Find the multiplicative inverse of the following.
   A. 3^{-4}
   B. 13^{-9}
   C. 100^{-10}
   D. 47^{-1}
2. Find the $23^{-3} * 23^{-2}$ using the law.
3. Find the $100^{-9} * 31^{-9}$
4. Simplify :
   A. $(70^{23})^{-3}$
   B. $(123^{2})^{-63}$
   C. $(4^{1} + 4^{-1}) * 5^{-1}$
5. Express the following numbers in usual form
   A. 1.3×10^{-7}
   B. 1.5678×10^{9}
   C. 1.56×10^{-12}

Block 27-Direct and inverse variation

1. 6 people can do a job in 10 hours. How long will it take 9 people to do the same job?
2. A hostel has enough food to feed 1500 students for 100 days. for how many days would the food last if 120 more students were to join the hostel?.
3. The volume of a gas varies inversely with the pressure of the gas on its container. If a pressure of 25 pounds per square inch corresponds to a volume of 68 cubic inches, What pressure is needed to correspond to a volume of 80 cubic inches?
4. Train A travels 200km in 2 hours. If train B also travels at the same speed as Train A, what distance will it cover in 5 hours?.

5. A pump empties a swimming pool in 40 minutes at the rate of 1400 L/min. If the rate of pumping is 2000 L/min, how long does it take to empty the swimming pool?
6. Shweta wants to complete her senior design project to be able to graduate. She works on er project for 20 minutes out of every 3 hours. If her project requires 10 hours of work, how long will it take shweta to finish her project?.
7. The cost of producing pencils varies directly with the number of pencils produced. If the cost of producing 6,000 pencils is $400, then what will be the cost of production for 10,000 pencils?
8. Brian drives a distance of 250 m at a speed of 50 m/sec. With what speed should he drive so that he covers twice the distance in the same time?
9. An oil drilling company pumps 62 gallons of oil per minute into tankers. Find the time taken to pump 2852 gallons of oil into the tankers, if number of gallons of oil pumped is directly proportional to the time taken for pumping.
10. The current in an electrical conductor varies inversely as the resistance of the conductor. What is the current when the resistance is 23 ohms, if the current is 9 amperes when the resistance is 69 ohms?
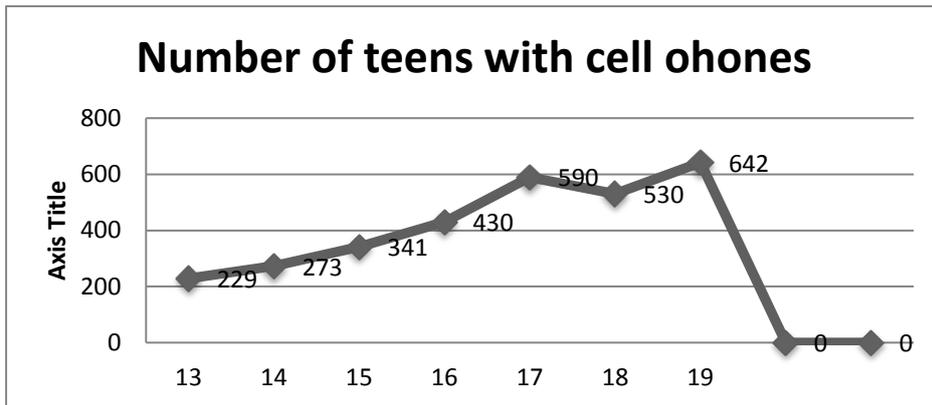
Block 28-Linear Graph

1. The co-ordinates of a point are (0,2) the point will lie in _____ Quadrant.
2. The co-ordinates of a point are (-9,-6) the point will lie in _____ Quadrant.
3. Vertical line is called as _____.
4. The following table gives the quantity of orange and its cost. Draw a linear graph for the data.

No. of orange	1	2	3	4	5
Cost per orange	2	4	6	8	10

5. The given table shows the number of cars produced by a company during 5 years. Draw a line graph to represent the data.

Year	2010	2011	2012	2013	2014
No. of Cars	15000	24000	21000	30000	39000

6. Interpret the graph and answer the following questions

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7. Plot the ordered pairs on coordinate plane (4,2), (4,7), (7,2), (7,7).

8. Plot the ordered pairs on coordinate plane (7,1), (7, 6), (9,1), (9,6) and find the area and perimeter.

9. Draw linear graph for the following data.

X	1	3	5	7
Y	2	4	6	8

10. How do you find the perimeter of a triangle given (2, 2), (-2, 2) and (-2,3) ?