Class 8ᵗʰ **Mathematics January test 2012** Time: 1 Hr.   FM: 50
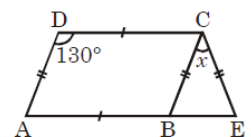
1. There is 60% increase in an amount in 6 years at simple interest. What will be the compound interest of Rs. 12,000 after 3 years at the same rate?

2. The difference between compound interest and simple interest on an amount of Rs. 15,000 for 2 years is Rs. 96. What is the rate of interest per annum?

3. A right triangle with sides 3 cm, 4 cm and 5 cm is rotated the side of 3 cm to form a cone. The volume of the cone so formed

4. A large cube is formed from the material obtained by melting three smaller cubes of 3, 4 and 5 cm side. What is the ratio of the total surface areas of the smaller cubes and the large cube?

5. A does 80% of a work in 20 days. He then calls in B and they together finish the remaining work in 3 days. How long B alone would take to do the whole work?

6. A is 30% more efficient than B. How much time will they, working together, take to complete a job which A alone could have done in 23 days?

7. A takes twice as much time as B or thrice as much time as C to finish a piece of work. Working together, they can finish the work in 2 days. In how many days B can do the work alone?

8. A bag contains coins of denomination of Rs. 5 and Rs. 2. The total value of these coins is Rs. 1272. If the number of two rupee coins is 15% of the five rupee coins, find the number of coins of each denomination.

9. The following data shows the expenditure of an individual over various items :

Items	Education	Food	Rent	Clothing	Others
Expenditure (in Rs.)	1600	3200	4000	2400	3200

Represent the above data by a pie chart.

10. A rectangular sheet of aluminium foil is 44 cm. long and 20 cm. wide. A cylinder is made out of it, by rolling the foil along width. Find the volume of the cylinder.

Or, what is the value of *x* if *ABCD* is a parallelogram and *CBE* is an isosceles triangle?

11. Fill in the blanks carrying 1 marks

1) If the edges of a cube are halved, then its volume become

2) For plotting a point on graph sheet, we need _____ and _____.

3) ---- is the co-ordinates of origin.

4) The point (0, 5) lie on--------- axis

5) The representation of statistical data by means of circle is known as ------- that is also called a----

6) A coin is tossed twice. --------- is the probability of getting both tails.

7) One card is drawn from a well shuffled deck of 52 cards. --- is the probability of getting a face card.

8) ------ is the maximum value of the probability for an event?

9) Two dice are thrown simultaneously. –- is the probability of getting an even number as the sum.

10) If base radius of a cylinder is doubled then the volume of new cylinder = _____ times the volume of given cylinder.