

Class 9th

Concept Based Questions

Q.1 : Which of the following statements is true?

- A. Every irrational number can be represented as a fraction.
- B. Every irrational number can be represented with the help of decimals.
- C. Every rational number can be represented as a terminating decimal.
- D. Every rational number can be represented as an integer.

Q.2 : A soap manufacturer makes fragrant and non-fragrant liquid soaps. The liquid soaps are filled in plastic bottles and packed in equal size cartons for transportation. Each carton contains 50 bottles. The mass of a full bottle of soap is 220 gm and that of a half-filled bottle is 120 gm. What will be the mass (gm) of the empty bottle?

- A. 10 gm
- B. 20 gm
- C. 100 gm
- D. 110 gm

Q.3 : Which of the following is not true?

- A. A line has one dimension.
- B. A plane has two dimensions.
- C. A circle can be drawn with any radius and at any point.
- D. Two distinct lines can pass through a point in the same direction.

Q.4 : Balan says, 'The measure of all right angles cannot be equal as their arms can be of different lengths.' Why is Balan's statement not true?

- A. The measure of an angle depends upon its orientation.
- B. The measure of an angle depends upon the instrument used to measure it.
- C. The measure of an angle depends on the length of its angle arms.
- D. The measure of an angle depends upon the rotation of one arm on another.

Q.5 : Shyam made a die using a cuboid-shaped eraser. He painted one face of the die with the number 2, two faces with the number 1 and three faces with the number 4. Shyam throws the die. What is the probability of getting a 1?

- A. $\frac{1}{2}$

- B. $\frac{1}{3}$
- C. $\frac{1}{4}$
- D. $\frac{1}{6}$

Q.6 : A triangle whose base angles measure 70° and perimeter is 28 cm is drawn. Which of the following options shows the side lengths of the triangle formed?

- A. 7cm, 14cm and 7cm
- B. 8cm, 12cm and 8cm
- C. 9cm, 10cm and 9cm
- D. 10cm, 8cm and 10cm

Q.7 : TAB is a straight line. C is the mid-point of AB. D is the mid-point of AC. Which of the following shows the relation between the line segments?

- A. $AD = \frac{1}{2}AB$
- B. $AD = \frac{1}{2}CB$
- C. $AD = 2AC$
- D. $AD = 2DC$

Q.8 : The equation of a line is $ax+by+c=0$.

What conditions ensure that the distance of the line from an axis is constant?

- A. $c=0$ and $a,b \neq 0$
- B. $c < 0$ and $a,b \neq 0$
- C. $c,b \neq 0$ and $a=1$
- D. $c, b \neq 0$ and $a=0$

Q.9 : Shyam made a die using a cuboid-shaped eraser. He painted one face of the die with the number 2, two faces with the number 1 and three faces with the number 4. Shyam throws the die. What is the probability of getting a face showing an even number?

- A. $\frac{1}{2}$
- B. $\frac{1}{3}$
- C. $\frac{1}{6}$
- D. $\frac{2}{3}$

Q.10 : The area of a triangle and a parallelogram are equal. Which of the following statements is true for them?

- A. The base length and the altitude of the triangle and the parallelogram are the same.
- B. Both the triangle and the parallelogram lie between the same set of parallel lines and their bases are the same.
- C. The base length and the corresponding altitude of the triangle are two times the base length and the corresponding altitude of the parallelogram.
- D. Either the corresponding base length or the corresponding altitude of the triangle is the double of the parallelogram's base length or altitude.

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TGT Maths