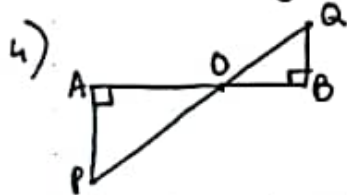


Revision Test - 2

- 1) a and b are two positive integers such that least prime factor of a is 3 and least prime factor of b is 5. Then the least prime factor of $a+b$ is — (a) 3 (b) 2 (c) 5 (d) 1
- 2) The smallest natural number by which 1200 should be multiplied so that the square root of the product is a rational number (a) 5 (b) 2 (c) 1 (d) 3
- 3) The zeroes of the quadratic polynomial $x^2 + 99x + 127$ are (a) both negative (b) both positive (c) both equal (d) one +ve and one -ve

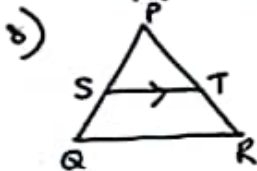


$\angle A = 90^\circ, \angle B = 90^\circ, OB = 4.5 \text{ cm}, OA = 6 \text{ cm}$
and $AP = 4 \text{ cm}$, then $QB =$ —
(a) 5 cm (b) 3 cm (c) 4 cm (d) 4.5 cm

- 5) Assertion: The positive root of $\sqrt{3x^2 + 6} = 9$ is 5
Reason: If $x = \frac{2}{3}$ and $x = -3$ are roots of $ax^2 + 7x + b = 0$, then a and b are 3 and -6.
Justify your answer.

- 6) Case-Study :- A boy wants to participate in a 200m race. He can run that distance in 51 seconds now and with each day of practice he takes 2 seconds less to reach. He wants to do in 31 seconds
(i) Write the A.P.
(ii) What is the minimum no. of days he needs to practice till his goal is achieved?
(iii) $a_n = 2n + 3$, then find the C.d
(iv) If $2x, x + 10, 3x + 2$ are three consecutive terms of an A.P., then find x .

- 7) If in two Δ s DEF and PQR, $\angle D = \angle Q$ and $\angle R = \angle E$, then which of the following is not true?
(a) $\frac{EF}{PR} = \frac{DF}{PQ}$ (b) $\frac{DE}{DF} = \frac{FE}{RP}$ (c) $\frac{DE}{QR} = \frac{DF}{PQ}$ (d) $\frac{EF}{RP} = \frac{DE}{QR}$



$ST \parallel QR$, S divides PQ in the ratio 4:5
If $ST = 1.6 \text{ cm}$, what is the length of QR?

- (a) 0.71 cm (b) 2 cm (c) 3.6 cm (d) cannot calculate
- 9) Which of the following has sum of roots as 3? Calculate
(a) $2x^2 - 3x + 6 = 0$ (b) $-x^2 + 3x - 3 = 0$ (c) $\sqrt{2}x^2 - \frac{3}{\sqrt{2}}x + 1 = 0$
(d) $3x^2 - 3x + 3 = 0$
- 10) If zeroes of $ax^2 + bx + c, a \neq 0$ are equal, then _____ and _____ have same sign.