

Question Paper

Class: VII

80 Marks

I. Choose the correct answer.

(10 × 1 = 10)

a. 7845 g = _____ kg

i. 7.845

ii. 0.7845

iii. 78.45

iv. 784.5

b. The rational number $\frac{192}{288}$ in its standard form is _____.

i. $\frac{12}{18}$

ii. $\frac{2}{3}$

iii. $\frac{2}{4}$

iv. $\frac{2}{8}$

c. 915 in standard form is _____.

i. 9.15×10^3

ii. 9.15×10^5

iii. 9.15×10^4

iv. 9.15×10^2

d. The solution of the equation $x - 8 = 14$ is _____

i. $x = 20$

ii. $x = 22$

iii. $x = 6$

iv. $x = 8$

e. The ratio $2\frac{2}{5} : 3\frac{3}{5}$ in the simplest form is _____.

i. 4 : 9

ii. 12 : 17

iii. 12 : 18

iv. 2 : 3

f. The sum of all angles at a point is _____.

i. 180°

ii. 90°

iii. 360°

iv. 270°

g. If $a : b = 3 : 7$ and $b : c = 7 : 5$, then $a : b : c =$ _____.

i. 3 : 5 : 7

ii. 5 : 3 : 7

iii. 7 : 5 : 3

iv. 3 : 7 : 5

h. An angle that measures more than 180° and less than 360° is called as an _____ angle.

i. acute

ii. right

iii. obtuse

iv. Reflex

i. The degree of the polynomial $8x^4 + 7x^4y + 3x^2 + 5$ is _____.

i. 2

ii. 3

iii. 4

iv. 5

j. The exponent and base in 20^{17} are _____ and _____, respectively.

i. 20; 17

ii. 17; 20

iii. 20: 1

iv. None of these

2. Fill in the blanks.

(5 × 1 = 5)

a. The corresponding angles between two parallel lines are _____.

b. (-1) raised to any odd power is _____.

c. The sum of the measures of two supplementary angles is _____.

d. If C.P. is ₹ 540 and S.P. is ₹ 720, then profit per cent is _____.

e. The sum of the exponents of variables in a term is called its _____.

3. Match the following.

(5 × 2 = 10)

a. 0.0015×525

i. 5

b. Find x : $3x + 9 = 4(2x - 4)$

ii. -55

c. $(-4)^5$

iii. -1024

d. $-\frac{15}{\frac{3}{11}}$

iv. 731500

e. 73.15×10^4

v. 0.7875

4. Solve the following.

(5 × 3 = 15)

a. Find 6 rational numbers between $-\frac{1}{3}$ and $\frac{1}{3}$.

b. Divide 41.2424 by 0.65.

c. $\left(\frac{4}{9}\right) \times \left(-5\frac{18}{56}\right) \times \frac{1}{5}$

d. $[(3^2)^5 \div (3^2)^3] \times 2^2$

e. Add: $(5a + 3b - 14c + 11)$ and $(11 - 3a + 5c - 6b)$

5. Do as instructed.

$$(5 \times 4 = 20)$$

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

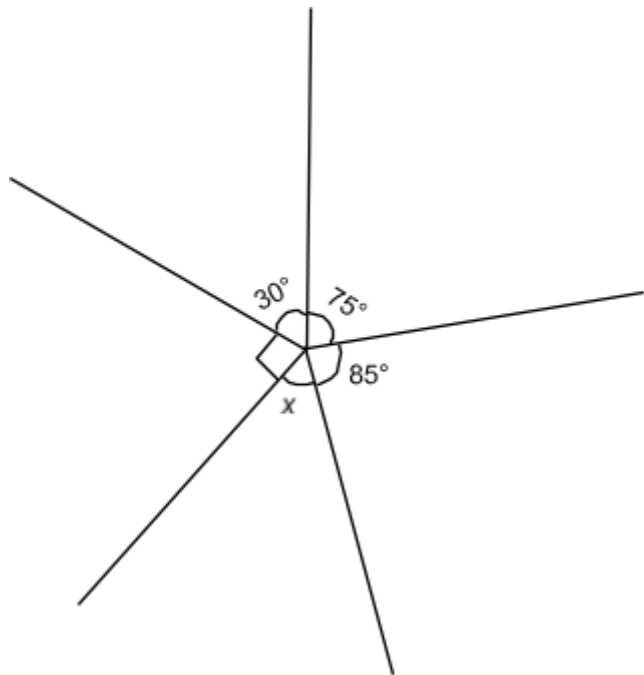
b. If $a : b = 2 : 3$ and $b : c = 4 : 5$, then find $a : c$.

c. Subtract $(3a + 4b + 11)$ from the sum of $(-5a + 7b - 42)$ and $(7a + 3b - 17)$.

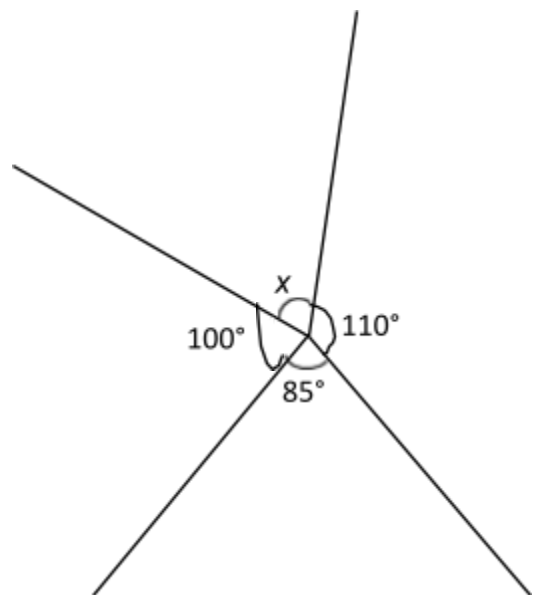
d. There are 120 students in a class and 64 of them are girls. Find the percentage of
(i) girls in the class
(ii) boys in the class

e. Find the value of x in each diagram.

i.



ii.



6. Word problems.

(4 × 5 = 20)

a. Kanak secured 45 marks out of 60 in science and 75 out of 80 in mathematics.

In which subject did she secure better marks?

b. 12 men can paint a house in 10 days. If 20 men are employed, then find the number of days in which the house can be painted.

c. The level of water in a tank increased from 45 cm to 48.5 cm. Find the percentage increase in the water level.

d. Robin borrowed some amount at 10 % p.a. rate of interest from a bank. Find the amount borrowed if he pays ₹ 7200 as an interest at the end of 6 years. Also, find the amount paid by Ram to clear the loan.
