

CH. 8 : COMPARING QUANTITIES

1. Divide Rs. 45000 among P, Q and R in the ratio 2 : 3 : 4. What will it be in percentages.
2. The three angles of a triangle are in the ratio 1 : 2 : 3. Find their measures. Is it right-triangle?
3. Find the S.P. given,
 - i) C.P. = Rs. 700, gain = 12%
 - ii) C.P. = Rs. 960, gain = $7\frac{1}{2}\%$
 - iii) C.P. = Rs. 2000 and loss = $4\frac{1}{2}\%$
4. Find the C.P. given,
 - i) S.P. = Rs. 2725, gain = 9%
 - ii) S.P. = Rs. 819, loss = 9%
5. Find the Amount in each case.
 - i) P = Rs. 1500, R = 9% p.a., T = 3 years
 - ii) P = Rs. 2250, R = $8\frac{1}{3}\%$ p.a., T = 2 years
 - iii) P = Rs. 5000, R = $12\frac{1}{2}\%$ p.a., T = 2 years
6. Find the sum borrowed (Principal) in each case.
 - i) I = Rs. 1080, R = 9% p.a., T = 3 years
 - ii) I = Rs. 800, R = 8% p.a., T = 2 years
 - iii) I = Rs. 1050, R = 5% p.a., T = 3 years
7. Find the Rate of Interest, given
 - i) Int = Rs. 825, P = Rs. 3300, T = 3 years
 - ii) P = Rs. 6000, Int = Rs. 780, T = 2 years
 - iii) P = Rs. 3500, Int = Rs. 490, T = 2 years

8. The price of Yamaha Motor Cycle in a particular year was Rs. 69,000. The next year the price went up to Rs. 73,830. What was the percentage of increase ?
9. Convert each part of the ratio to percentage.
i) 7:13 ii) 3 : 4 : 5 iii) 12 : 13
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CH. 10 : PRACTICAL GEOMETRY

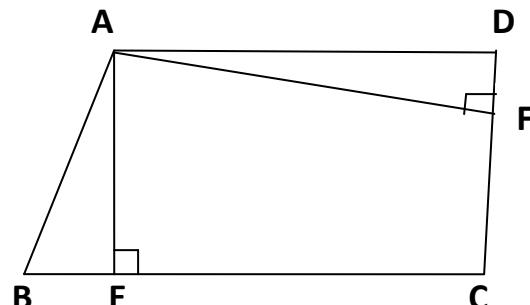
1. Construct ΔABC , given $AB = 6\text{cm}$, $BC = 8\text{cm}$ and $AC = 10\text{cm}$
Measure $\angle B$.
 2. Construct an isosceles triangle ABC with $AB = AC$. $BC = 5.5\text{cm}$.
Perimeter = 17.5 cm.
 3. Construct ΔPQR with $m \angle Q = 120^\circ$ and $PQ = 7\text{ cm} = QR$.
 4. Construct ΔXYZ given $YZ = 10\text{ cm}$, $\angle Y = 60^\circ$, $\angle X = 90^\circ$
 5. Construct a right angled triangle with its legs 6 cm each.
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CH. 11 : PERIMETER AND AREA

1. Find the perimeter and area of a rectangle if its length = 13 cm and breadth = 5 cm.
2. Find the perimeter and area of a square whose side is 7 cm.
3. The perimeter of a square is 28cm. Find its area.
4. The area of a square is 144 cm. Find its Perimeter.
5. The perimeter of rectangle is 80cm. If its length is 25cm, find its area.

6. The perimeter of a square is same as the circumference of a circle. If the area of the square is 121 cm, find the area of the circle.

7. In the figure, ABCD is a parallelogram.
 $AE \perp BC$, $AF \perp DC$. If $AB = 8 \text{ cm}$,
 $BC = 10 \text{ cm}$, $AF = 6 \text{ cm}$
Find AE



8. Area of triangle is 60 sq cm. If its base is 12 cm, Find its altitude.
9. The area of a circle is 38.5 cm^2 . Find its Circumference.
10. Find the area of a circular track if the outer radius is 14 m and the inner radius is 7m.
11. The diameter of a wheel of a car is 42 cm. How far will it go in 100 revolutions.
12. The minute hand of a wall clock is 21 cm long. Find the area swept by the minute hand in 30 minutes.

CH. 12 : ALGEBRAIC EXPRESSIONS

1. Add : $3x^2 + 4xy - 2y^2$ and $x^2 - 5xy + y^2$
2. Subtract : $x^2 - xy + 3y^2$ from $2x^2 - 2xy + y^2$
3. From the sum of $a^2 + 2ab - b^2$ and $ab + 2b^2$ subtract the sum of $2a^3 + 5ab$ and $-ab + b^2$
4. Find the value of $2x^3 - 3x^2 - 5x + 1$ when
i) $x = 1$ ii) $x = -1$ iii) $x = 2$ iv) $x = -2$

CH. 13 : EXPONENTS AND POWERS

1. Prime factorise and write in exponential form.
 - i) 504
 - ii) 1512
 - iii) 3087
 - iv) 2058
2. Simplify :
 - i)
$$\frac{3 \times 2^4 \times 3^5}{4 \times 9^2}$$
 - ii)
$$\frac{18^4 \times 4^3 \times 9}{6^3 \times 27^2 \times 8}$$
3. Express in standard form :
 - i) 75,850
 - ii) 20,035,000,000

CH. 15 : VISUALISING SOLID SHAPES

1. Find the dimensions of a cuboid obtained by joining 3 cubes end to end.
2. Draw 'NETS' for the following 3-D shapes.
 - i) Cube
 - ii) Cuboid
 - iii) a square-pyramid
 - iv) Tetrahedron (triangle-pyramid)
3. Complete the following table.

3 D Shape	No. of faces	No. of edges	No. of vertices
Cube			
Cuboid			
Tetrahedron			
Square-Pyramid			

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