

- Add the following expressions : $6ax - 2by + 3cz$, $6by - 11ax - cz$ and $10cz - 2ax - 3by$
- Manohar purchased two handbags for Rs.1500 each. He sold these bags, gaining 8% on one and loosing 4% on other. Find his gain/loss percent in the whole transaction.
- The ratio of two sides of parallelogram is 4:3. If its perimeter is 56 cm, find the length of its side.
- The area of trapezium is 405 cm^2 . If its parallel sides are in ratio 4:5 and the distance between them is 18 cm. Find the length of each parallel side.
- The circumference of base of cylinder is 176 cm and its height is 65 cm. Find the volume of cylinder and its lateral surface area.
- In a hostel, 75 students had food provision for 24 days. If 5 students leave the hostel, for how many days would the food provision last?
- Find the following product: a) $(x^2 - 3x + 7) \times (2x + 3)$ b) $(3x^2 + 5x - 9) \times (3x - 5)$
- Find the volume, total and lateral surface area of a cuboid which is 8m long , 6m broad and 3.5m high.
- Divide: a) $x^3 - 6x^2 + 9x - 2$ by $(x - 2)$ b) $10x^4 + 17x^3 - 62x^2 + 30x - 3$ by $(2x^2 + 7x - 1)$
- What must be subtracted from $3a^2 - 6ab - 3b^2 - 1$ to get $4a^2 - 7ab - 4b^2 + 1$
- Factorise: a) $25a^2 - 4b^2 + 28bc - 49c^2$ b) $121a^2 - 88ab + 16b^2$ c) $36c^2 - (5a + b)^2$
- A train is moving at a uniform speed of 75 km/h. How far it will travel in 24 minutes? In how much time will it cover 175 kms?
- Find the measure of each of the interior angle of regular, pentagon, hexagon, octagon and polygon of 12 sides.
- Four angles of quadrilateral are in ratio 2:3:5:8. Find the angles of quadrilateral
- In a fort, 300 men had provisions for 90 days. After 20 days, 50 men left the fort. How long would the food last at the same rate?
- Factorise: a) $2x^2 + 9x + 10$ b) $6x^2 + 7x - 3$ c) $3x^2 + 14x + 8$
- If $(x + \frac{1}{x}) = 4$, find the value of a) $(x^2 + \frac{1}{x^2})$ b) $(x^4 + \frac{1}{x^4})$
- Find the value of expression $(64x^2 + 81y^2 + 144xy)$ when $x=11$ and $y=4/3$.
- A closed metallic cylindrical box is 1.25m high and it has a base whose radius is 35cm. If the sheet of metal cost Rs.80/m², then find the cost of material used in the box, also find its capacity in litres.
- What is the number of diagonals in a pentagon, hexagon, quadrilateral and polygon of 10 sides.
- Find the value of x in fig.1 and fig.2

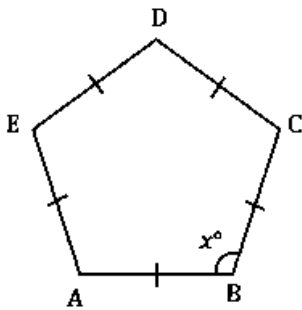


Fig.1

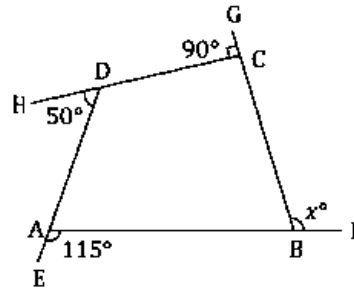
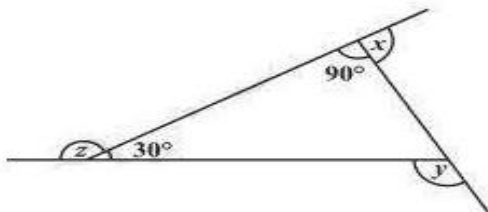
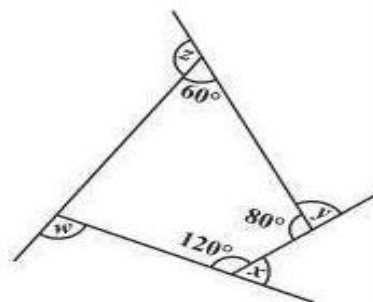


Fig.2

22.



(a) Find $x + y + z$



(b) Find $x + y + z + w$