

b. Two angles of an eight sided polygon are 152° and 166° respectively. (3)
If the remaining angles are equal, find each of the remaining angles.

c. If $x + \frac{1}{x} = 4$, find the values of (4)

i. $x^2 + \frac{1}{x^2}$ ii. $x - \frac{1}{x}$ iii. $x^3 + \frac{1}{x^3}$

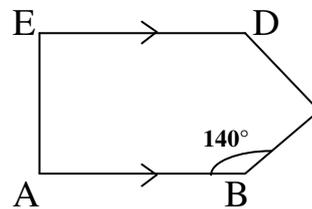
Q. 4 a. Factorize: $(2z - y)^2 - 11(2x - y) + 28$ (3)

b. Solve : $\frac{7}{x} + \frac{8}{y} = 2$; $\frac{2}{x} + \frac{12}{y} = 20$ (3)

c. Using ruler and compasses only, Construct ΔABC , in which $BC = 6.5\text{cm}$, $\angle B = 120^\circ$ and $\angle C = 60^\circ$. Construct a circumcircle. (4)

Q. 5 a. If $\frac{2-\sqrt{2}}{2+\sqrt{2}} = x + y\sqrt{2}$, find the values of the rational numbers x and y . (3)

b. In a pentagon $ABCDE$, AB is parallel to ED and $\angle B = 140^\circ$. (3)
Find the angles C and D if $\angle C : \angle D = 5 : 6$



c. The difference between the ages of two sisters is 10 years. 15 years ago (4)
their ages were in the ratio 2:1. Find their present ages.