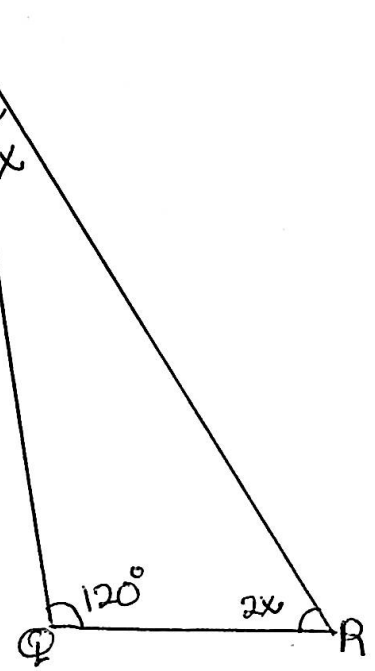
Answers for Wed. 13/05/2020 Sipro P.7 Term Two Pg 120-123

1 a



$X + 2X + 120^\circ = 180^\circ$

$3X + 120^\circ = 180^\circ$

$3X + 120^\circ - 120^\circ = 180^\circ - 120^\circ$

$3X + 0 = 60^\circ$

$3X = 60^\circ$

$\frac{3X}{3} = \frac{60^{20}}{3}$

$X = 20^\circ$

b Angle P

$\angle PRQ = 2X$

$= 2 \times 20^\circ$

$= 40^\circ$

2 first find the value of k.

$5k + 3k + 7k = 180^\circ$

$\frac{15k}{15} = \frac{180^{12}}{15_1}$

$K = 12^\circ$

$\angle ABC = 5k$

$5k = 5 \times 12^\circ$

$= 60^\circ$

4 (a)

$n+10^\circ + n+20^\circ + n+30^\circ = 180^\circ$

$n+n+n+10^\circ+20^\circ+30^\circ = 180^\circ$

$3n + 60^\circ = 180^\circ$

$3n+60^\circ-60^\circ = 180^\circ-60^\circ$

$3n+0 = 120^\circ$

$\frac{3n}{3} = \frac{120}{3}$

$n = 40^\circ$

(b) $\angle PRN = n+20^\circ$

$= 40^\circ+20$

$= 60^\circ$

3 $2x+x+3x = 180^\circ$

$3x+3x = 180^\circ$

$\frac{6x}{6} = \frac{180^\circ 30}{6_1}$

$x = 30^\circ$

5 $2x+40^\circ+2x+x+20^\circ = 180^\circ$

$2x+2x+x+40^\circ+20^\circ = 180^\circ$

$5x + 60^\circ = 180^\circ$

$5x+60^\circ-60^\circ = 180^\circ-60^\circ$

$5x+0 = 120^\circ$

$\frac{5x}{5} = \frac{120^\circ}{5}$

$x = 24^\circ$

b (i) $BAC = 2x+40^\circ$

$= 2x24^\circ+40^\circ$

$= 48^\circ+40^\circ$

$= 88^\circ$

(ii) $ABC = x+20^\circ$

$= 24+20$

$= 44^\circ$

(iii) $ACB = 2x$

$= 2x24$

$= 48^\circ$