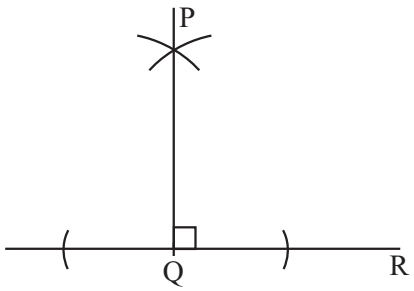
පිළිතුරු පත්‍රය

I කොටස

01.	0.062		02
02.	7.528×10^5		02
03.	(i) 5	01	
	(ii) 5.25	01	02
04.	$a = 135^0$	01	
	$b = 180^0 - 135^0$ $= 45^0$	01	02
05.	$v - u = at$	01	
	$a = \frac{v - u}{t}$	01	02
06.	$\frac{x^{-2}}{x}$	01	
	$\frac{1}{x^3}$	01	02
07.	$y = 3x$		02
08.	ON → √ → 6 → 4 → = → 8		02
09.	$57_{\text{දශය}}$ 2 | 57 2 | 28 - 1 2 | 14 - 0 2 | 7 - 0 2 | 3 - 1 2 | 1 - 1 $111001_{\text{ද්විය}}$		02
10.			02
11.	$x + 2x + 3x + 120^0 = 360^0$	01	
	$120^0 + 6x = 360^0$ $6x = 360^0 - 120^0$ $x = \frac{240^0}{6}$ $= 40^0$	01	02
12.	38 - 3n		02
13.	$Y^2 + 9^2 = 15^2$	01	
	$Y^2 = 15^2 - 9^2$ $= 225 - 81$ $Y = \sqrt{144}$		
	$Y = 12cm$	01	02
14.	$\frac{x}{7} - 8 = 2$		
	$\frac{x}{7} = 8 + 2$	01	
	$x = 70$	01	02
15.	$300 \times \frac{2}{5} = 120$	01	
	$180 \times \frac{1}{3} = 60$	01	02
16.	අදාළ නිර්මාණය සඳහා		02
17.	$= 4\left(\frac{1}{2}\right) + 6\left(-\frac{1}{3}\right)$	01	
	$= 2 + (-2)$ $= 0$	01	02
18.	$A\hat{B}E + E\hat{B}D = C\hat{B}D + E\hat{B}D$	01	
	$A\hat{B}D = C\hat{B}E$	01	02
19.	$40^0 + 90^0 + x = 180^0$	01	
	$x = 50^0$	01	02
20.	$3(P^2 - 25)$	01	
	$3(P - 5)(P + 5)$	01	02

II කොටස

01.	(i) ටින් පියනේ විශ්කම්භය සෙවීමට		02
	(ii) $= 19 - 5$ $= 14cm$		01 01
	(iii) ටින් පියනේ පරිධිය / වටේ දිග		01
	(iv) $2\ r = 2 \times \frac{22}{7} \times 7$ $= 44cm$		04
	(v) (a) 14cm		02
	(b) 15 + 14 + 15 + 22 = 66cm		05
			16

පිළිතුරු පත්‍රය

02. (i) $x^2 - x - 20$

$-20x^2$

$-5x \quad +4x$

$= x^2 - 5x + 4x - 20$

$= x(x - 5) + 4(x - 5)$

$= (x - 5)(x + 4)$ — 03

(ii) $\frac{2P}{3} - 4 = 6$

$\frac{2P}{3} = 6 + 4$

$2P = 10 \times 3$

$P = \frac{30}{2}$

$= 15$ — 03

(iii) $a - 3b = 13$ ——— (1)

$-a + b = -7$ ——— (2)

(1) + (2)

$-2b = 13 + (-7)$

$-2b = 6$

$b = \frac{6}{-2}$

$= -3$

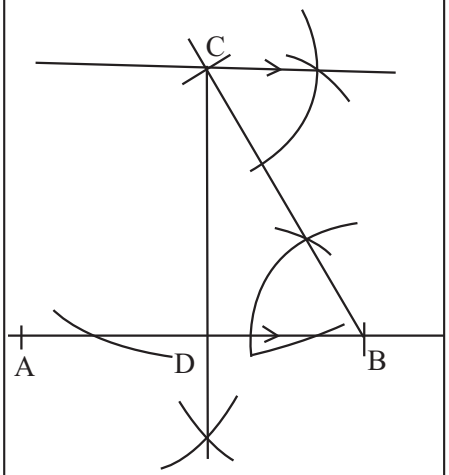
$b = -3$ (2) හි ආදේශයෙන්,

$-a - 3 = -7$

$a = 4$ — 05

11

03.



නිවැරදි නිර්මාණ රේඛා දක්වමින් ඇති නිර්මාණයට ලකුණු පිරිනමන්න.

(i) AB — 01

(ii) $A\hat{B}C = 60^0$ — 02

(iii) C — 01

(iv) ලම්භකය — 03

(v) D — 01

(vi) සමාන්තර රේඛාවල — 03

11

04. (i) $x = -1$

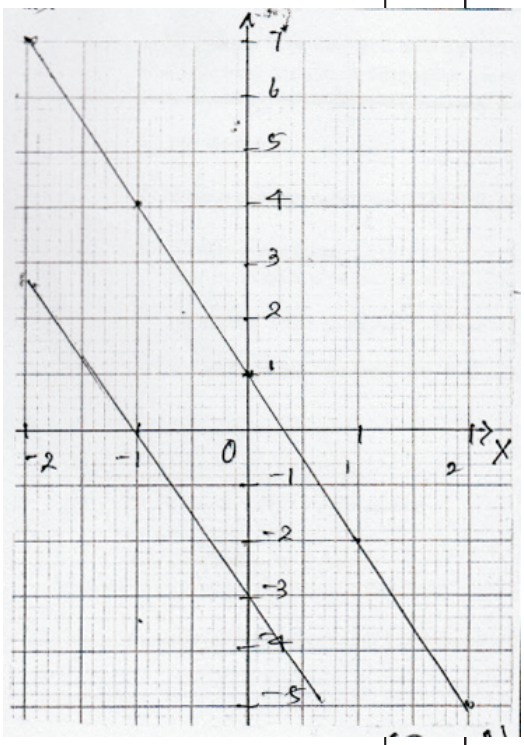
$y = -3x + 1$ $\qquad$ $y = -3x + 1$

$= -3 \times (-1) + 1$ $\qquad$ $= -3 \times 1 + 1$

$= 3 + 1$ $\qquad$ $= -3 + 1$

$= 4$ $\qquad$ $= -2$ — 02

(ii)



— 03

(iii) $m = -3$

$c = +1$ — 02

(iv) ---------- 02

(v) ප්‍රස්ථාර 02 හි අනුක්‍රමණ සමාන වීම. — 02

11

05. (a) (i) රු. 80000×20

$= $ රු. 1600000 — 02

(ii) රු. $1600000 \times \frac{4}{100}$

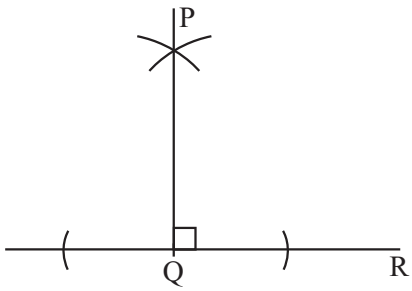
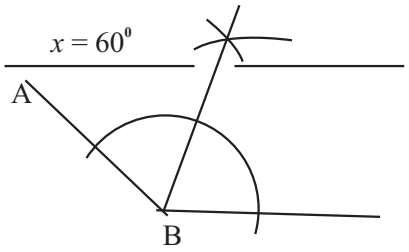
$= $ රු. 64000 — 02

පිළිතුරු පත්‍රය

	(iii) රු. $1600000 \times \frac{1}{100}$ $= රු. 16000$		02
	(b) (i) රු. $19000 \times \frac{100}{95}$ $= රු. 20000$		03
	(ii) රු. 1000/- (20000 - 19000)		02 **11**
06.	(a) (i) $2\frac{1}{3} \times 1\frac{5}{7} = \frac{7}{3} \times \frac{12}{7}$ $= 4$		02
	(ii) $2\frac{2}{3} + 3\frac{1}{5} \quad 1\frac{3}{5}$ $= \frac{8}{3} + \frac{16}{5} \quad \frac{8}{3}$ $= \frac{8}{3} + \frac{16}{5} \times \frac{3}{8}$ $= \frac{8}{3} + \frac{6}{5}$ $= \frac{40 + 18}{15}$ $= \frac{58}{15}$ $= 3\frac{13}{15}$		04
	(b) (i) $\frac{26730}{150} = රු. 178.20$		03
	(ii) රු. 178.20 x 50 $= රු. 8910.00$		02 **11**
07.	(i) $5m \times 5m \times 4m = 100m^3$		02
	(ii) $100 \times 1000l = 100000l$		02
	(iii) $\frac{100000}{250} = 400l$		03
	(iv) රු. 400 x 30 x 0.20 $= රු. 2400/-$		04 **11**

පිළිතුරු පත්‍රය

I කොටස

01.	0.31 x 2.5 0.775	01 01	02
02.	$y = 2x$		02
03.	(i) $x^0 + 2x^0 + 3x^0 + 120^0 = 360^0$ (ii) $6x + 120 = 360^0$ $6x = 360 - 120$ $6x = 240^0$ $x = 240^0 / 6$ $= 40^0$	01 01	02
04.	(i) 5 (ii) 5.25	01 01	02
05.	$v - u = at$ $a = \frac{v - u}{t}$	01 01	02
06.	$\frac{x^2 \times x^{-4}}{x} = \frac{x^2}{x}$ $= \frac{1}{x^3}$	01 01	02
07.	7.528×10^5		02
08.	ON → √ → 6 → 4 → = → 8		02
09.	$57_{\text{දශය}}$ $111001_{\text{ද්විය}}$ 2 | 57 2 | 28 2 | 14 2 | 7 2 | 3 2 | 1		02
10.			02
11.	$x = 60^0$		02
12.	$x = 60^0$ 		02
13.	$x^2 = 13^2 - 5^2$ $x = \sqrt{144}$ $= 12cm$	01 01	02
14.	$38 - 3n$		02
15.	$4\frac{2}{3}$		02
16.	$300 \times \frac{2}{5} = 120$ $180 \times \frac{1}{3} = 60$	01 01	02
17.	$4x + 6y = 4 \times \frac{1}{2} + 6 \times \left(\frac{-1}{3}\right)$ $= 2 + (-2)$ $= 0$	01 01	02
18.	$A\hat{B}E + E\hat{B}D = C\hat{B}D + E\hat{B}D$ $A\hat{B}D = C\hat{B}E$	01 01	02
19.	$40^0 + 90^0 + x^0 = 180^0$ $x^0 = 180^0 - 130^0$ $= 50^0$	01 01	02
20.	$= 3 (P^2 - 25)$ $= 3 (P - 5) (.....)$		02

II කොටස

01.	(i) ටින් පියනේ විශ්කම්භය සෙවීමට		02
	(ii) විශ්කම්භය = 19 - 5 = 14cm බව		02
	(iii) • 44cm • ටින් පියනේ පරිධිය / වටේ දිග		04
	(iv) 2 r සූත්‍රයෙන්, $2\ r = 2 \times \frac{22}{7} \times 7$ = 44cm		02
	(v) (a) 14cm		02
	(b) 15 + 14 + 15 + 22 = 66cm		04
			16

පිළිතුරු පත්‍රය

02. (i) $x^2 - x - 20$

$-20x^2$

$-5x \quad +4x$

$= x^2 - 5x + 4x - 20$

$= x(x - 5) + 4(x - 5)$

$= (x - 5)(x + 5)$ — 03

(ii) $\frac{2P}{3} - 4 = 6$

$\frac{2P}{3} = 6 + 4$

$2P = 10 \times 3$

$P = \frac{30}{2}$

$= 15$ — 03

(iii) $a - 3b = 13$ —— (1)

$-a + b = -7$ —— (2)

(1) + (2)

$-2b = 13 + (-7)$

$-2b = 6$

$b = \frac{6}{-2}$

$= -3$

$b = -3$ (1) හි ආදේශය,

$a - 3b = 13$

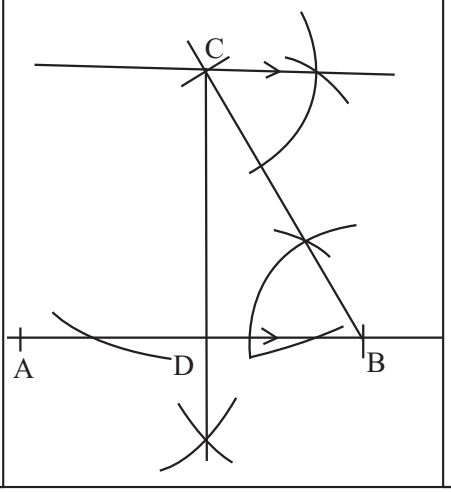
$a - 3 \times (-3) = 13$

$a + a = 13$

$a = 4$ — 05

11

03.



(i) 01

(ii) 02

(iii) 01

(iv) 03

(v) 01

(vi) 03

11

04. (i) $x = -1$

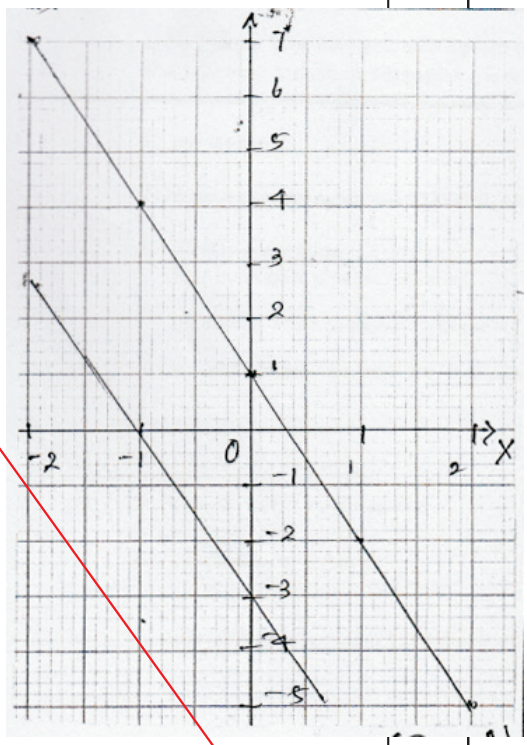
$y = -3x + 1$ $\quad$ $y = -3x + 1$

$= -3 \times (-1) + 1$ $\quad$ $= -3 \times 1 + 1$

$= 3 + 1$ $\quad$ $= -3 + 1$

$= 4$ $\quad$ $= -2$ — 02

(ii)



02

(iii) $m = -3$

$c = +1$ — 02

(iv) 02

(v) ප්‍රස්ථාර 02 හි අනුක්‍රමණ සමාන වීම. 02

11

05. (a) (i) රු. 80000 x 20

= රු. 160000 — 02

(ii) රු. 160000 x $\frac{4}{100}$

= රු. 64000 — 02

පිළිතුරු පත්‍රය

	(iii) රු. $160000 \times \frac{1}{100}$ $= රු. 16000$ (b) (i) රු. $19000 \times \frac{100}{95}$ $= රු. 20000$ (ii) රු. 1000/- (20000 - 19000)		02 03 02 **11**
06.	(a) (i) $2\frac{1}{3} \times 1\frac{5}{7} = \frac{7}{3} \times \frac{12}{7}$ $= 4$ (ii) $2\frac{2}{3} + 3\frac{1}{5} \quad 1\frac{3}{5}$ $= \frac{8}{3} + \frac{16}{5} \quad \frac{8}{3}$ $= \frac{8}{3} + \frac{16}{5} \times \frac{3}{8}$ $= \frac{8}{3} + \frac{6}{5}$ $= \frac{40 + 18}{15}$ $= \frac{58}{15}$ $= 3\frac{13}{15}$ (b) (i) $\frac{26730}{150} = රු. 178.20$ (ii) රු. 178.20 x 50 $= රු. 8910.00$		02 03 03 02 **11**
07.	(i) $5m \times 5m \times 4m = 100m^3$ (ii) $100 \times 1000l = 100000l$ (iii) $\frac{100000}{250} = 400l$ (iv) රු. 400 x 30 x 0.20 $= රු. 2400/-$		02 03 03 03 **11**