

EXAMINATION PRACTICE 1

1 a 1.2 mpg

b 1920 gallons

2 a $\frac{58}{99}$

b $\frac{63}{111}$

3 $\frac{9}{40}, \frac{7}{8}, \frac{7}{128}$

4 a $y = \frac{x}{2}$

b 2.5

c 1

5 a $p = \frac{1}{5}q^2$

b 80

c ± 10

13 a BP = 5.4 cm

b CQ = 4 cm

14 a (i) 4, 6 (ii) 2, 3, 4, 5, 6, 8

b (i) 4 is a member (or element) of set B

(ii) There are four members in set B

15 a



b (i) 13

(ii) 1

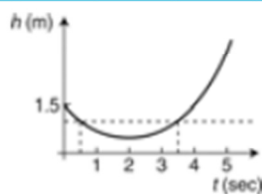
(iii) 9

6 a 9000 b $N = \frac{9000}{d^2}$ c 2250 d 3 cm

7 a $x = 4\sqrt[3]{y}$ b $y = 512$

8 a

t	0	1	2	3	4	5
h	1.5	0.75	0.5	0.75	1.5	2.75



b 1.5 m c 0.5 m at 2 s d 0.6 s to 3.4 s

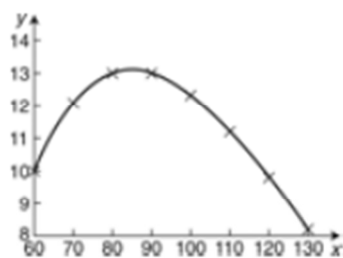


b $x = -3, -1, 1$

10 a

x	60	70	80	90	100	110	120	130
$\frac{x}{3}$	20	23.3	26.7	30	33.3	36.7	40	43.3
$\frac{2400}{x}$	40	34.3	30	26.7	24	21.8	20	18.5
y	10	12.4	13.3	13.3	12.7	11.5	10	8.2

b $y = 70 - \frac{x}{3} - \frac{2400}{x}$



c 10.75 km/litre d $\cong 85$ kph

11 a 80° b 74°

12 a $m = 35^\circ, n = 126^\circ$

b (i) $(90 + x)^\circ$ (ii) x° (iii) $(90 - 2x)^\circ$

c $\angle ABE = 90^\circ$ ($\angle DBE = x^\circ$)

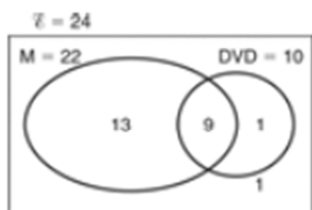
\therefore triangles ABE and ACD are similar

$\therefore \frac{BE}{CD} = \frac{AE}{AC}$

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