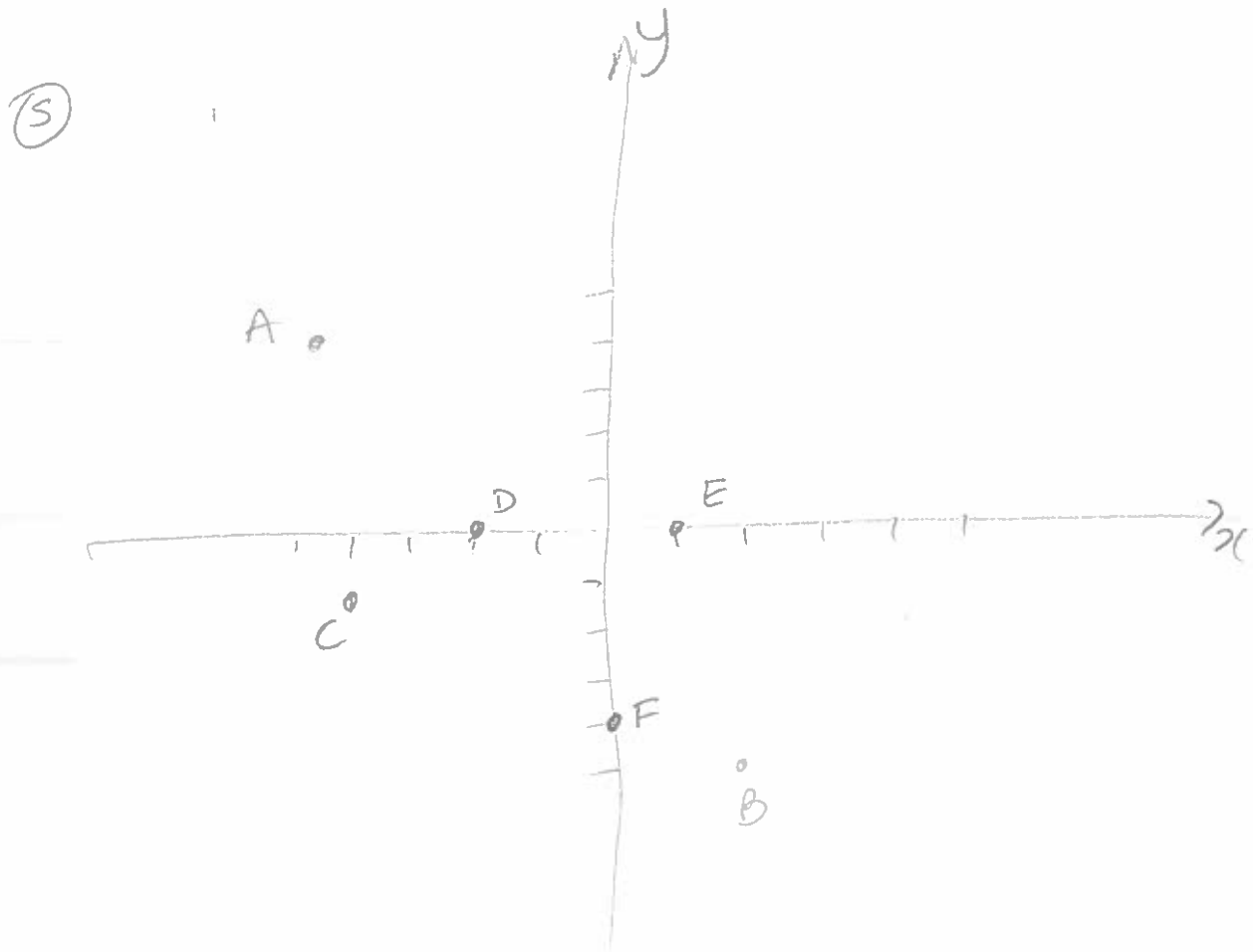
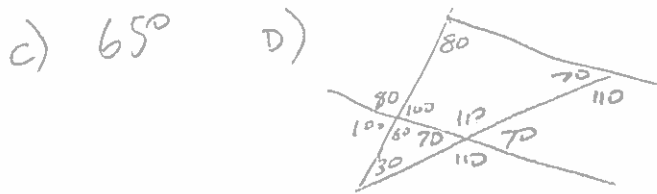


S1/2 End of Course HW

① a) $3-8 = -5$ b) $-4+18 = 14$ c) $-27+(-54) = -81$
d) $3+(-100) = -97$ e) $-9-(-2) = -7$ f) $-42-(-89) = 47$

② a) $7.84+12.76 = 20.6$ b) $9-3.21 = 5.79$ c) $81.34 \times 8 = 650.72$
d) $8.26 \div 7 = 1.18$ e) $93.8-9.2 = 84.6$ f) $157.2 \div 3 = 52.4$

③ a) 50° b) 46° c) 30° ④ a) 35° b) $70^\circ, 110^\circ, 70^\circ$



⑥ a) $\frac{3}{50} = 6\% = 0.06$ b) $\frac{18}{25} = 72\% = 0.72$ c) $\frac{9}{10} = 0.9 = 90\%$ d) $\frac{14}{20} = 70\% = 0.7$

⑦ $\frac{3}{50} = 0.06$ $7\% = 0.07$ $\frac{1}{20} = 0.05$ 0.7 0.17 $6.7\% = 0.067$

$\frac{1}{20}$, $\frac{3}{50}$, 7.2% , 7% , 0.17 , 0.7

⑧ a) $\frac{1}{2}$ of 564 = 282 b) $\frac{1}{7}$ of 2996 = 428 c) $\frac{5}{8}$ of 1.176 = 0.735

d) $\frac{4}{9}$ of 3168 = 1408 e) $\frac{3}{4}$ of 3284 = 2463 f) $\frac{5}{6}$ of 1944 = 1620

⑨ a) 25% of £380 = £95 b) 50% of 1704 ml = 852 ml c) 75% of \$348 = \$261

d) $33\frac{1}{3}\%$ of 280g = 96g e) 90% of 35L = 31.5L f) 3% of 700g = 21g

⑩ a) $3 \times 4 + 2 = 12 + 2 = 14$ b) $8 + 7 \times 3 = 8 + 6 = 14$ c) $10 + 8 \div 2 = 10 + 4 = 14$

d) $21 \div 3 - 6 = 7 - 6 = 1$ e) $10 - 3 + 4 = 7 + 4 = 11$ f) $4 \times 4 \div 2 = 16 \div 2 = 8$

⑪ a) hundreds : tens
 $\begin{matrix} \times 4 & : & 3 \\ \hline 12 & : & 9 \end{matrix} \times 3$

b) h : l
 $\begin{matrix} \times 7 & : & 3 \\ \hline 28 & : & 21 \end{matrix} \times 7$

⑫

a) £150 in ratio 2:3
 $150 \div 5 = 30$ £60 : £90

b) 294m 4:3
 $294 \div 7 = 42$ 168m : 126m

⑬

a) $4x + 3y - 2x - 7y = 2x - 4y$

b) $4t - 7r + 5t + r + 6 = 9t - 6r + 6$

c) $6c + 8w - 3w - 10w = 6c - 5w$

d) $7 + 3p + 4q + 8 = 3p + 4q + 15$

(14)

$$a) 3b+d = 3(2)+9 = 15$$

$$b) 4d-c = 4(9)-(-6) = 42$$

$$c) c-a = -6-(-1) = -5$$

$$d) c-4b = -6-4(2) = -14$$

$$e) 20-3b = 20-3(2) = 14$$

$$f) 630-6d = 630-6(9) = 576$$

(15)

$$a) 5x+7=32$$

$$5x=25$$

$$\underline{x=5}$$

$$b) 6x-3=15$$

$$6x=18$$

$$\underline{x=3}$$

$$c) \frac{7c}{2} = 21$$

$$7c=42$$

$$\underline{c=6}$$

$$d) 7(3a+4) = 21$$

$$21a+28=21$$

$$21a=-7$$

$$\underline{a=-\frac{1}{3}}$$

$$g) 3(6q+4) = 39$$

$$18q+12=39$$

$$18q=27$$

$$\underline{q=\frac{3}{2}}$$

$$f) 7x+6-5x+2 = 11$$

$$2x+8 = 11$$

$$2x=3$$

$$\underline{x=\frac{3}{2}}$$

$$\text{or } 3a+6 = 3$$

$$3a=-3$$

$$\underline{a=-1}$$

$$g) 3p-6 = 14+p$$

$$2p-6 = 14$$

$$2p=20$$

$$\underline{p=10}$$

$$h) 20a+7 = 5a+22$$

$$15a+7 = 22$$

$$15a=15$$

$$\underline{a=1}$$

(16)

$$a) 4n+2 \Rightarrow 6, 10, 14, 18, 22, 26$$

$$b) n+6 \Rightarrow 7, 8, 9, 10, 11, 12$$

$$c) 3n-5 \Rightarrow -2, 1, 4, 7, 10, 13$$

17) a)

courses	1	2	3	4	5	7	12
books	3	9	15	21	27		69

$7 \times 6 = 42$

b) $b = 6c - 3$

c) 9 classes $b = 6(9) - 3 = \underline{\underline{51}}$

d) 57 books $57 = 6c - 3$
 $6c = 60$
 $c = 10$

18)

a) $A = b \times h$
 $= 8 \times 5$
 $= 40 \text{ cm}^2$

b) $A = 5 \times 12$
 $= 60 \text{ m}^2$

c) $A_1 = 11 \times 12$ $A_2 = 16$
 $= 132$
 $A_T = 132 + 16 = 148 \text{ cm}^2$

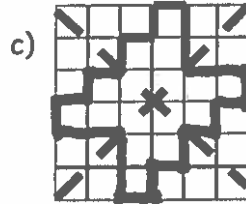
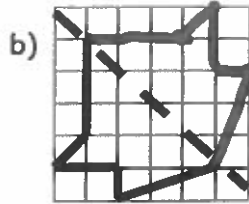
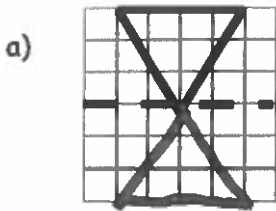
19)

a) $A = \frac{1}{2} b \times h$
 $= \frac{1}{2} \times 3 \times 5$
 $= \underline{\underline{7.5 \text{ cm}^2}}$

b) $A = \frac{1}{2} \times 8 \times 6$
 $= \underline{\underline{24 \text{ m}^2}}$

c) $A_1 = \frac{1}{2} \times 9 \times 4 = 18 \text{ m}^2$
 $A_2 = 3 \times 9 = 27 \text{ m}^2$
 $A_T =$

20)



(21) a) $V = L \times b \times h$
 $= 50 \times 30 \times 25$
 $= \underline{\underline{37500 \text{ cm}^3}}$

b) $V = L \times b \times h$
 $30 = 5 \times 2 \times h$
 $10h = 30$
 $h = \underline{\underline{3 \text{ cm}}}$

(22) $10:30 \text{ am} = 10:30 \xrightarrow{30 \text{ min}} 11:00 \xrightarrow{7 \text{ hrs}} 18:00 \xrightarrow{20 \text{ min}} 18:20$
Total time = 7 hrs 50 min.

(23) a) $S = \frac{300}{4} = 75 \text{ mph}$
 $\underline{\underline{\hspace{10em}}}$

b) $D = S \times T$
 $= 80 \times 6.25$
 $= \underline{\underline{500 \text{ miles}}}$

