

① $530\text{cm} = \underline{5.3\text{m}}$ ①

② 1 hour = 60 mins $\frac{1}{4}$ hour = 15 mins

3 hours = 180 mins $3\frac{3}{4}$ hours = 195 mins ①

③ $4.43\dot{5}4 = \underline{4.44}$ 2 dps ①

④ $0.9 = \frac{9}{10} = \frac{90}{100} = \underline{90\%}$ ①

⑤ $(-3)^3 = -3 \times -3 \times -3 = \underline{-27}$ ①

⑥ a/ 5412 ② It has to be even!

You get ① for 5421 or an even 4 digit number

b/	54	45	25	15
	52	42	24	14
	51	41	21	12

① at least 6
① all 12 correct

⑦ See back pages

Be organised

⑧ a/ Half of 18 is 9 ①

b/ No, for example 27 is not prime because it has more than 2 factors (1, 27, 3, 9). ① need a specific example

⑨

	200	40	7	①
60	12000	2400	420	
3	600	120	21	

12000
2400
600
420
21
<u>15561</u>

15,561 ①

(10)

Height

$$\begin{array}{r} 2.54 \\ \times 22 \\ \hline 508 \\ 5080 \\ \hline 55.88 \text{ cm} \end{array}$$

His bag is only
50cm so it will
fit

width

$$\begin{array}{r} 2.54 \times \\ \times 14 \\ \hline 1016 \\ 2540 \\ \hline 35.56 \end{array}$$

His bag is 40cm
wide so it won't
fit the width.

trying
to
convert cm $\leftrightarrow$ in

at least one correct
conversion

Chris can't take his bag on the plane

(11)

	Blue	Brown	Green	Total
Boys	5	3	4	12
Girls	6	7	5	18
Total	11	10	9	30

① two correct

① four correct

① fully correct

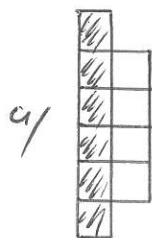
(12)

R: B

28:84 ① writing as a ratio

1:3 ①

(13)



①

$$6/20 + 22 = \underline{\underline{42}}$$

4 Grey tiles

$n+2$

① ①

There are
the same number
of white tiles
as the pattern
number.

3/1

FPP



(Condensed Solutions)

F

14

q Lita pays $42 \times 50.1 \times 13 \approx 4 \times 50 \times 10$

① multiplying

$$= 2000p$$

① estimating

$$= \underline{\underline{\pounds 20}}$$

① answer $\rightarrow$

& underestimate because all the values
were rounded down. ①

15

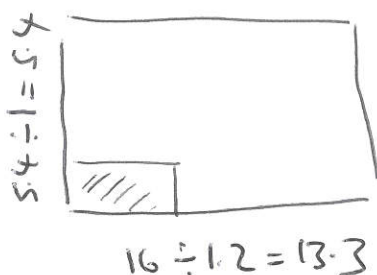
The rectangle in your reduced version

is 8cm

by 2.7cm

i.e. 16mby 5.4m

① converting according to the scale



13.3 boards lengthwise

5.4 boards width wise

$$5.4 \times 13.3 = 72 \text{ boards } \textcircled{1}$$

needed.

He has 150 > 72 so he has plenty. ①

16

$$\text{Area} = 2 \times 10 +$$

$$= \frac{20}{12} +$$

① any one area

$$2 \times 6 +$$

$$\underline{\underline{32\text{cm}^2}} \textcircled{1}$$

17

See back pages

18

$$\text{Men} = 500 \div 20 \times 7 = 175 \textcircled{1}$$

$$\text{Women} = 500 \div 10 \times 8 = 200 \textcircled{1}$$

$$\text{Children} = 500 - (200 + 175) = \underline{\underline{125}} \textcircled{1}$$

19 Milk needed = $\frac{3}{4} \times 7 = \frac{21}{4} = 5\frac{1}{4}$ pints (1)

He must buy whole pints so he needs 6 pints. (1)

Cheapest is to buy 2 pint bottles

$$3 \times 93 = \underline{\underline{\pounds 2.79}} \quad (1)$$

He may need to spend more (1)

20 $5x + 18 + 7x + 90 = 180$ (1) setting up an equation

$$12x = 72$$

$$x = 6$$

(1) solving

$$7x = 42$$

$$5x + 18 = 48$$

$$\underline{\underline{42}} \quad (1)$$

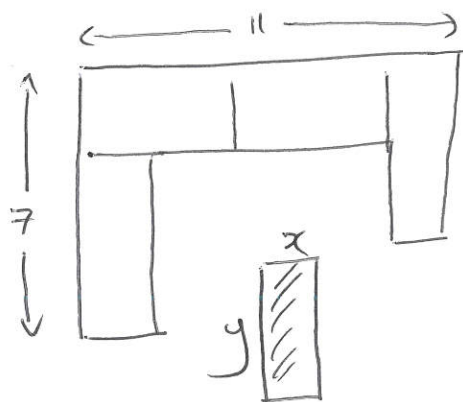
21 $35 = \frac{140}{A} \Rightarrow A = \frac{140}{35}$

(1) substituting

$$= \underline{\underline{4 \text{ m}^2}} \quad (1) \text{ units!}$$

22 $1 - (0.24 + 0.32) = 1 - 0.56$
 $= 0.44 \quad (1)$

$$0.44 \div 2 = \underline{\underline{0.22}} \quad \text{for blue or green} \quad (1)$$



$$2y + x = 11 \quad (1)$$

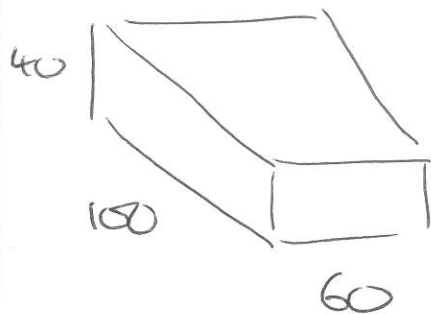
$$y + x = 7 \quad -$$

$$y = 4 \quad (1)$$

$$x = 3 \quad (1)$$

$$\text{Area of one tile} = 4 \times 3 = 12 \quad (1)$$

$$\text{Total area} = 4 \times 12 = \underline{\underline{48 \text{ m}^2}} \quad (1)$$



$$\text{Volume} = 40 \times 100 \times 60$$

$$= 240\,000 \quad (1)$$

1 litre = 1000 cm³

$$\text{Litres needed} = \frac{240\,000}{1000} = 240 \quad (1)$$

$$\text{Bags needed} = \frac{240}{8} = 30 \quad (1)$$

$$\text{Cost} = 2.5 \times 30 = \pounds 75 \quad (1)$$

$$\pounds 75 > \pounds 70 \text{ so she is } \underline{\text{wrong}} \quad (1)$$

25 a/ Shaif because he has thrown the coin more times (1)

b/ Paul is right for his data. (1)
 overall he is wrong because in total
 the coin landed heads 3 times more (1)
 often (300 versus 100 tails).

6/1

FPP →

(Condensed Solutions)

(F)

254

$$p(\text{heads}) = 3/4 \quad (1)$$

$$p(\text{heads twice}) = \frac{3}{4} \times \frac{3}{4} = \frac{9}{16} \quad (1)$$

(26)

$$\cos 30 = \sqrt{3}/2 \quad (1)$$

$$\sin 30 = \frac{x}{12} \Rightarrow \cos = \frac{x}{12} \quad (1)$$

$$\Rightarrow \underline{\underline{x=6}} \quad (1)$$

(27)

$$(x+3)(x-1) = x^2 - x + 3x - 3 \quad (1)$$

$$= \underline{\underline{x^2 + 2x - 3}} \quad (1)$$

(28)

$$x^2 - 16 = (x+4)(x-4) \quad (1)$$

(29)

$$\begin{array}{r} 4x + y = 25 \\ x - 3y = 16 \\ \hline \end{array}$$

$$12x + 3y = 75$$

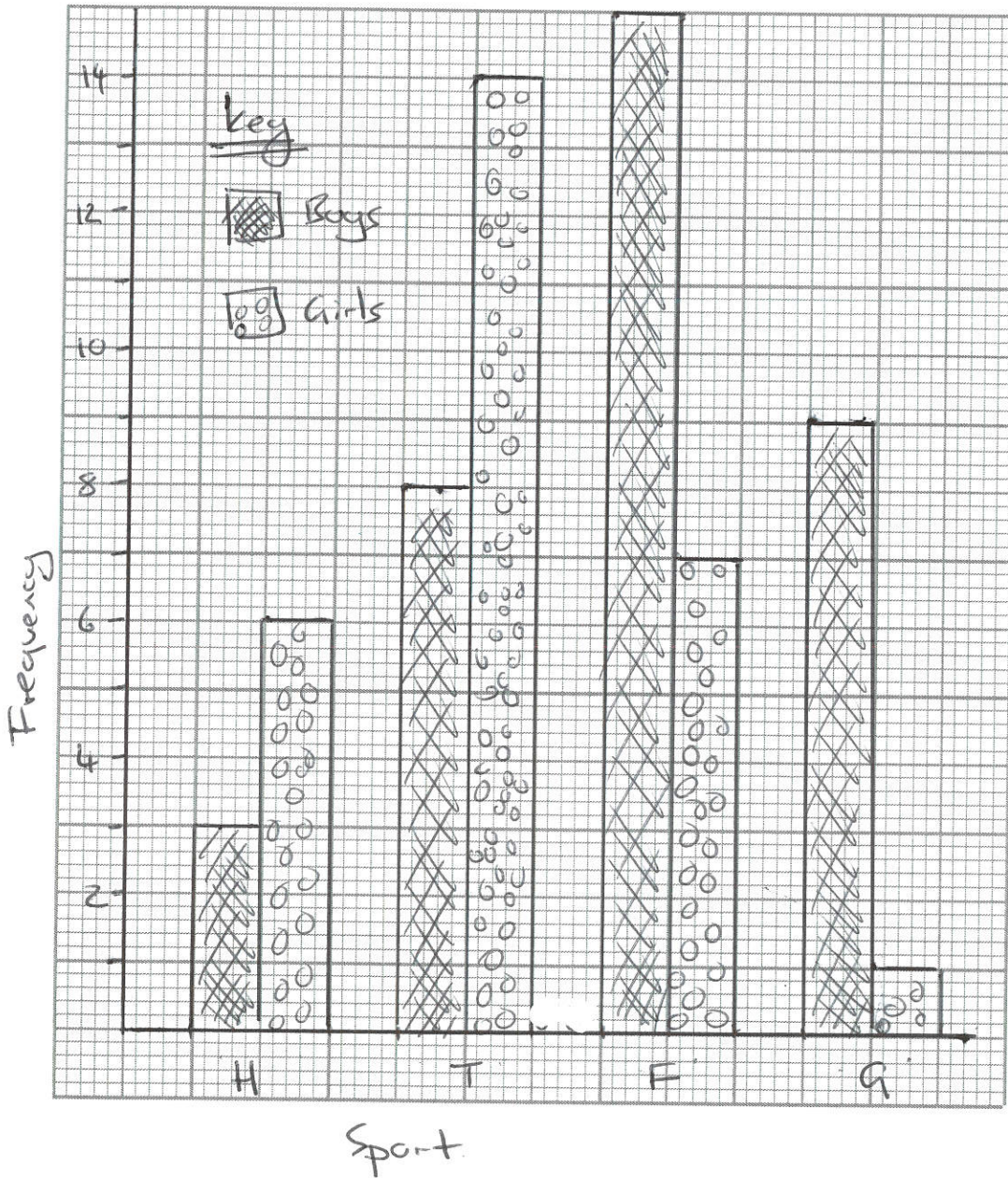
$$\begin{array}{r} x - 3y = 16 \quad + \\ \hline \end{array}$$

$$13x = 91$$

$$x = 7 \quad (1)$$

$$\underline{\underline{y = -3}} \quad (1)$$

(7)



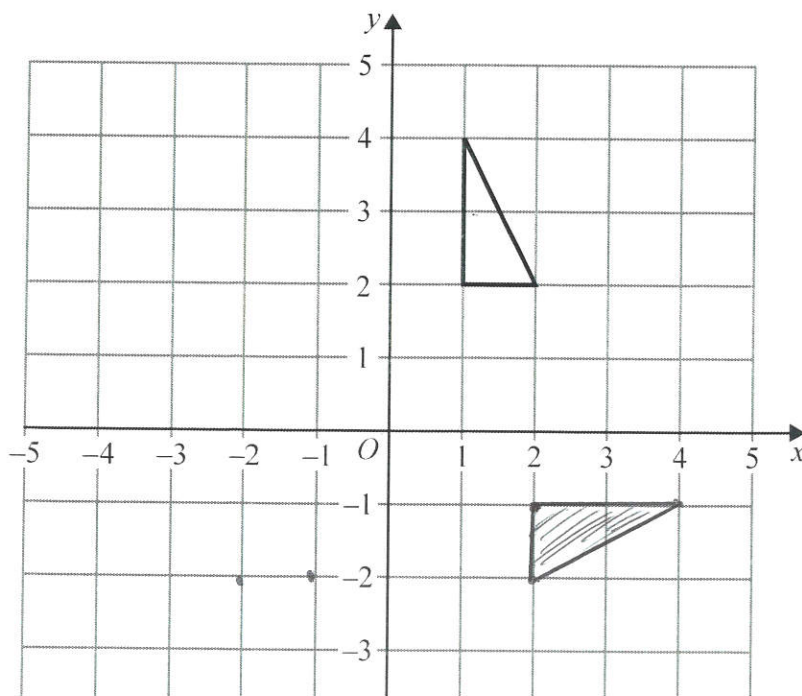
(A) key

(A) axes

(A) suitable for chart

(A) fully correct

(17)



(M) rotation 90°

(A) fully correct