Gcse
spec 1
P2

FPP ⇒ (calculator) Condensed Solutions (F)

Q	Solution	Notes
1	$3/10$ (1) or three tenths	
2	9 (1)	**not** a factor
3	$\frac{21}{100}$ (1)	
4	a/ $6f$ (1)	
	b/ $16mn$ (1)	
	c/ $2t^2$ (1)	
5	a/ (1) $27 \times 18 = 486$, $1000 - 486 = 514$ — £5.14 (1)	use a calculator
	b/ The pens will cost more so she will get less change (1)	
6	$458 - 72 = 386$ (1) for $\div 2$ or -72	
	$386 \div 2 = 193$	
	$193 + 72 = 265$ — £265 (1)	
7	$0.7 \times 90 = £63$ (1) (1)	When you have a calculator the most efficient method is to use a multiplier
8	$\frac{1}{2} = \frac{12}{12}$ $\frac{3}{4} = \frac{18}{24}$ $\frac{5}{12} = \frac{10}{24}$ (1) converting to /24	
	$\frac{5}{12}, \frac{1}{2}, \frac{17}{24}, \frac{3}{4}$ (1) or converting to decimals.	

FPP

Condensed Solutions

F

(9) There are 12.5 squares out of 20. (1)

$\frac{12.5}{20} \xrightarrow{\times 5} \frac{62.5}{100} = 62.5\%$ (1)

(1) ×5

(10) i) The manager has to stock dresses in whole sizes. So 15.3 is not very useful (1)

ii) The mode because this will be the dress size he needs to have most of. (1)

Using a multiplier again!

(11) $65 \times 0.8 = 52$ end of 1st week (1)

~~52×0.9~~ 2nd week

$52 - 10 = 42$ (1)

No, she only has €40. It costs €42 (1)

Oops, read the question Mr Fraktes!

(12)

Model	Real life
1	30
12cm	360

3.6m = 360cm

÷30

(1) both

12cm (1)

(13) a)

12 |	3	5	9			
13 |	0	3	3	5	7	8
14 |	7	7	8	9		
15 |	0	1				

key 12|3 means 123 (1)

(1) 1/2 errors
(1) fully correct

b) $\frac{6}{15}$ (1) (1)

FPP 4 — Condensed Solutions — F

(14) a) (0, −1) (1)

b) x at (3, 0) (1)

c) (−0·5, 0·5) (1)

(15) a) 210 ÷ 5 = 42

42 × 4 = 168 (1)

b) $(6 - 2.5)^2 + \sqrt{9.34 - 2.58} = 14.85$ (2)

Use your calculator for both these questions

(16) a) 4c + 5 = 11

4c = 6 (1)

c = 1·5 (1)

b) 5(e + 7) = 20 or 5e + 35 = 20

e + 7 = 4 (1) 5e = −15

e = −3 (1) e = −3

c) M6 (1)

(17) BAC = 180 − (90 + 22)

= 68° (1) angles in a triangle add up to 180° (1)

ACB = $\frac{180 - 68}{2}$ = 56° (1) (1) base angles in an isosceles triangle are equal

FPP → Condensed Solutions (F)

(18) $\frac{72}{16} = 4.5$ (1) finding multiplier

Use your calculator

240 × 4.5 = 1080g butter
350 × 4.5 = 1575g flour
100 × 4.5 = 450g sugar
280 × 4.5 = 1260g mincemeat

(1) using multiplier (1) all amounts correct

(19)

a) Letitia forgot to convert the $\frac{1}{2}$ into tenths properly. She forgot to multiply the numerator by 5. (1)

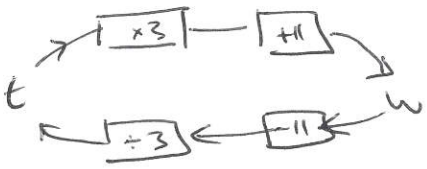
Other answer are possible

b) Dave should have converted from mixed to improper fractions before (1) multiplying.

(2) $w = 3t + 11$

$w - 11 = 3t$ (1)

$\frac{w-11}{3} = t$ (1)



(21)

Be organised
Use a calculator

London	Paris	New York
£1480	£1 = €1.34	£1 = $1.52
(1) 1478	1980	(1) 1480	2250
	÷1.34	÷1.52

Cheapest in Paris (1)

22

Shoes sold

Jan	110
Feb	84
Mar	78
April	94
May	90
June	120
Total	576

(1)

Mean Sales $= \frac{576}{6} = 96$ (1)

(1) Yes the shop met its target exactly

You need to read off the sales from the graph

23

a) $160 < h \leq 170$ (1)

b) The points should be plotted in the middle (1) of each class interval instead of at the end.

(1) The first or last point should not be joined. (1)

24 see last page

25 $7500 \times 1.04^2 = £8112$ (1) (1)

26 Let x be the number of marbles Becky has

Becky	x
Chris	$2x$
Dan	$2x+7$

(1)

$5x + 7 = 57$ (1)

$5x = 50$

$x = 10$

Becky	10
Chris	20
Dan	27

(1) No, if Dan gives Becky 10 marbles so she has same as Chris then Dan will only have 17.

(27)

Area circle $= \pi \times 8^2$
$= 201.06$

Area ½ circle $= 201.06/2$

Area rectangle $= 16 \times 19 = 304$

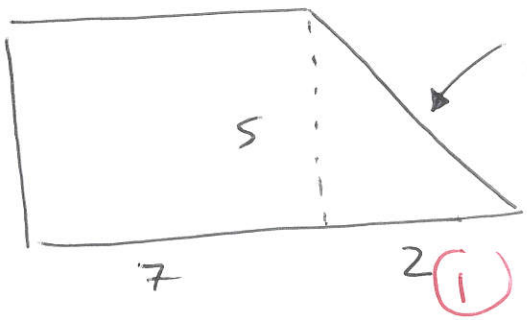
① any of these

Area shaded $= 304 - \frac{201.06}{2} = 203.46$ ①

% shaded $= \frac{203.46}{304} = 67\%$ ① ①

Answers can be between 66 & 68

(28)



$\sqrt{5^2 + 2^2} = 5.39$ ①

Pythagoras in disguise

Perimeter of trapezium $= 5 + 9 + 5.39 + 7$
$= 26.385$ ①

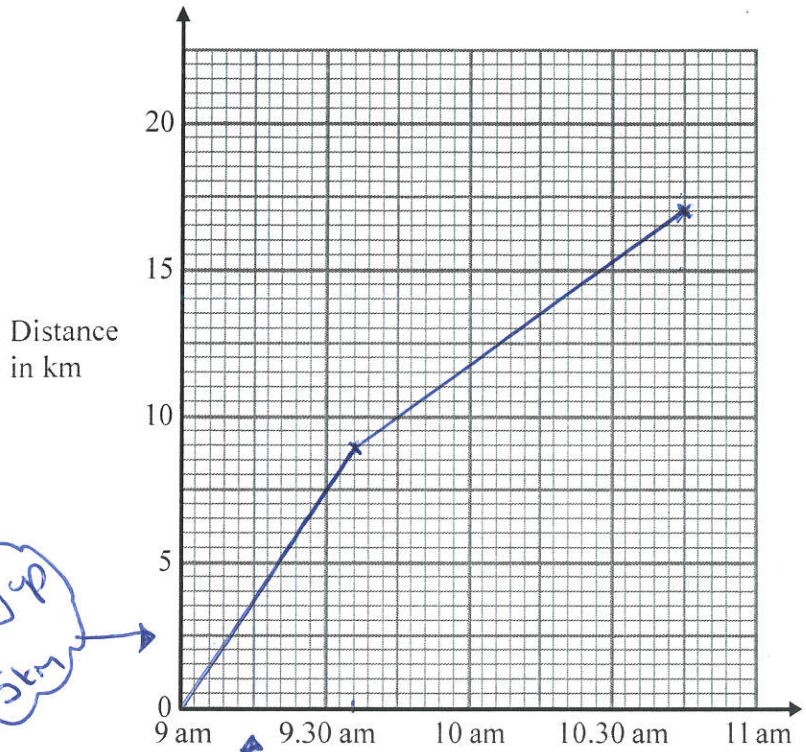
Side of square $= 26.385 \div 4 = 6.596$
① 6.6

Area of square $= 6.596^2 = 43.5\ cm^2$ ①
answer

43.5 or 43.6 accepted
must be 3sf

(24) overleaf for question 24

24



a) Speed = $\frac{\text{Distance}}{\text{Time}}$ so Distance = Speed × Time

= 15 km/h × 36 mins

= $15 \times \frac{36}{60}$

= 9 km

I can't mix minutes & km/h

So I change mins to hours

Use a calculator!

I need to find out how far Bradley travelled in the first 36 mins

b) Distance = Speed × Time

= $18 \times \frac{15}{60}$

= 4.5 km