Question Number	Marking Guidelines	Mark	Additional Information
1.	14π oe;	M1	
	43.98;	A1	Answer must be to 2 decimal places for A1.
2.(a)	$67 \div 12$;	M1	Seen or implied.
	6 (cases);	A1	
2.(b)	13;	A1	Allow 80 (obtained from 67 + 13).
3.(a)	Triangle completely above line *y* = *x* **OR** any two correct vertices;	B1	
	Completely correct reflection;	B1	Triangle with vertices at (1, 2), (1, 4) and (2, 3).
3.(b)	Translation;		Award no marks for a combination of transformations.
	3 units down/negative *x*-direction and 1 unit left/negative *y*-direction **OR** $\begin{pmatrix} -1 \\ -3 \end{pmatrix}$;		
4.	(Area of square=) 144;	A1	Or 12^2.
	$A = \pi(6)^2$;	M1	
	$\frac{144-36\pi}{4}$;	M1	36π may still be $\pi(6)^2$.
	5.37%;	A1	Or more sig fig (5.36504591...) providing rounding is correct. **NOT** 0.0537.
5.(a)	-3, -2, -1, 0, 1;	A1	All correct for mark. Accept any order.
5.(b)	$6p > 18$;	M1	
	$p > 3$;	A1	
6.(a)	$120 = 8(4)c$;	M1	Correct Substitution.
	$c = 3.75$;	A1	
6.(b)	$m^2 = \frac{p+1}{2}$;	M1	
	$2m^2 = p + 1$;	M1	
	$p = 2m^2 - 1$;	A1	

7.	1.02; $(1.02)^3$; (£)366 116.76;	M1 M1 A1	Or $\frac{102}{100}$ or equivalent.
8.(a)	(£) 3.75;	A1	
8.(b)	Correct substitution into any formula from table; Obtain (£)9(.00) for *WeTransferFiles*; Obtain (£)9.25 for *FileSwap*; Choose *WeTransferFiles*;	M1 B1 B1 C1	
9.	$5s = 15$; $s = 3$; $t^2 = 9$; $t = -3$ only; $v = 7$; $u = \frac{1}{2}$;	M1 B1 M1 B1 B1 A1	Stated or implied. If $t = 3$ used, allow 1 mark for obtaining $v = -5$ and previous marks, but no others (so max 4 marks).
10.(a)	$\frac{4}{8} \times \frac{3}{7}$; Obtain $\frac{12}{56}$ or 0.214;	M1 A1	 Or equivalent such as $\frac{3}{14}$.

10.(b)

		Second tile							
		1	1	3	3	5	5	5	5
First tile	1	-		√	√	√	√	√	√
	1		-	√	√	√	√	√	√
	3			-		√	√	√	√
	3				-	√	√	√	√
	5					-			
	5						-		
	5							-	
	5								-

Fully correct sample space will correct cases identified;

$\frac{20}{56}$ oe;

OR

$\frac{2}{8} \times \frac{6}{7} + \frac{2}{8} \times \frac{4}{7}$;

$\frac{20}{56}$;

M2

A1

M2

A1

M1 for 1,3 and 1,5 and 3,5 identified on any sample space. SC:B2 only for answer of $\frac{20}{64}$.

M1 for identifying all 3 possibilities of (1,3), (1,5) and (3,5).
OR

at least one of $\frac{2}{8} \times \frac{2}{7}$ (1,3) **or** $\frac{2}{8} \times \frac{4}{7}$ (1,5) **or** $\frac{2}{8} \times \frac{4}{7}$ (3,5)
or $\frac{2}{8} \times \frac{6}{7}$ (1,3 or 5).

M1 $\frac{2}{8} \times \frac{6}{7} + \frac{2}{8} \times \frac{4}{7}$ **or** $\frac{2}{8} \times \frac{2}{7} + \frac{2}{8} \times \frac{4}{7} + \frac{2}{8} \times \frac{4}{7}$.

A1 $\frac{20}{56}$ oe.