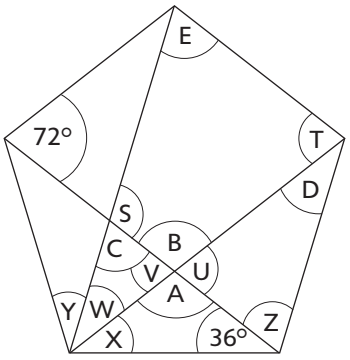
Section 3 Test 5 (page 32) continued

In the diagram below, if X is 36° so is Y. If you know the corner of the pentagon is 108°, then 108° − [36° + 36°] = 36° so W = 36°. If you know A and B are both 108°, together they make 216°. 360° − 216° = 144°. U + V = 144° so U and V must both be 72° as opposite angles when lines cross are equal. This means the triangle containing C has one angle measuring 36° and one measuring 72°, so C must be 72° as 36° + 72° + 72° = 180°.)



d) 36° (Z must be 72° as you know the adjacent angle is 36° and the corner total is 108°. U is also 72° as worked out already. 72° + 72° = 144°, so D must be 36°)

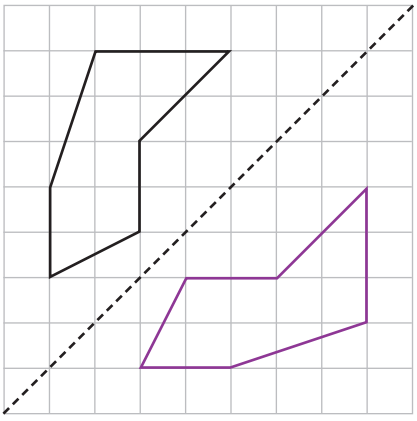
e) 72° (T must be 72° as 108° − 36° = 72°. B is 108° and S must be 108° as it makes a straight line with C and a straight line is 180°. E makes the 4th corner of a quadrilateral which will total 360°, so adding up the three corners you know 72° + 108° + 108° = 288°, 360° − 288° = 72°.)

4. 1.75cm (radius is half the diameter)

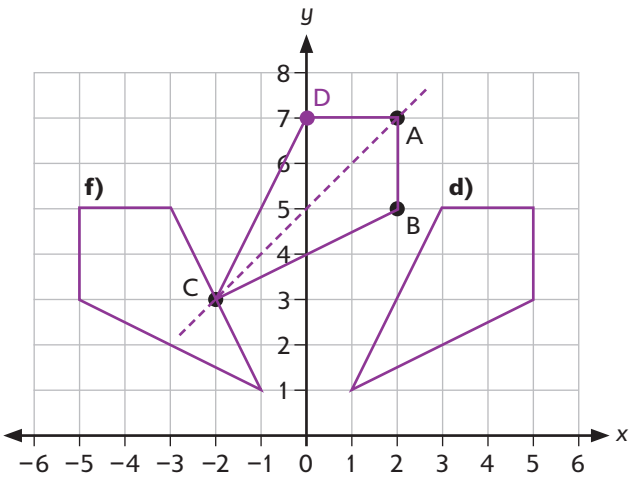
5. 4

6. 24

7. (1 mark for a correct reflection)



8. **a)** (1 mark for a correct point)



b) (0, 7)

c) (1 mark for a correct line of symmetry. See grid above.)

d) (1 mark for a correct translation. See grid above.)

e) (1, 1) (5, 3) (5, 5) (3, 5) in any order (1 mark for each correct coordinate. Max. 4 marks.)

f) (1 mark for a correct reflection. See grid above.)

Section 3 Test 6 (page 33)

1. **a)** 37 min

b) 07:26 (It will get her there at 07:48. The next bus – Bus C – doesn't get there until 09:09 which would be too late.)

c) 29 min

d) C

e) B (32 min)

2. (1 mark for each correct answer. Max. 6 marks.)

Pounds (£)	1	4	5	7	9	10
Dollars ($)	1.50	6	7.50	10.50	13.50	15

3. **a)** 20% (the section measures 72° = $\frac{1}{5}$ of 360° = 20%)

b) 12 (The section measures 54° = $\frac{3}{20}$ of 360°. $\frac{3}{20}$ of 80 = 12.)

c) $\frac{3}{10}$ (the section measures 108° = $\frac{3}{10}$ of 360°)

d) $\frac{1}{5}$ (the section measures 72° = $\frac{1}{5}$ of 360°)

e) 6 (The section measures 27° = $\frac{3}{40}$ of 360°. $\frac{3}{40}$ of 80 = 6.)

f) 7.5% (The section measures 27° = $\frac{3}{40}$ of 360°. $\frac{3}{40}$ = $\frac{75}{1000}$ = 7.5%.)