Q1.

$f(x) = 2x + c$

$g(x) = cx + 5$

$fg(x) = 6x + d$

c and d are constants.

Work out the value of d.

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Answer ....

[Total 3 marks]

Q2.

$f(x) = 3x$

Circle the expression for $f^{-1}(x)$

$$-3x \qquad\qquad \frac{3}{x} \qquad\qquad \frac{1}{3x} \qquad\qquad \frac{x}{3}$$

(Total 1 mark)

Q3. This method shows how you can square two-digit numbers that end in the digit 5.

Example 35^2

Write down the tens digit	3
Add 1 and multiply this by the tens digit	$4 \times 3 = 12$
Put this answer to the left of 25	1225

So $35^2 = 1225$

(a)   Use the same method to work out 75^2
You **must** show your working.

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Answer ....

(2)

(b)   Use the method backwards to work out the square root of 4225
You **must** show your working.

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Answer ....

(2)
(Total 4 marks)