FACTORISING QUADRATICS: BASIC CURVE SKETCHING

WRITE YOUR ANSWERS UPON THIS SHEET

NAME ……..

1) a) Solve the equation $x^2 + 3x - 18 = 0$.

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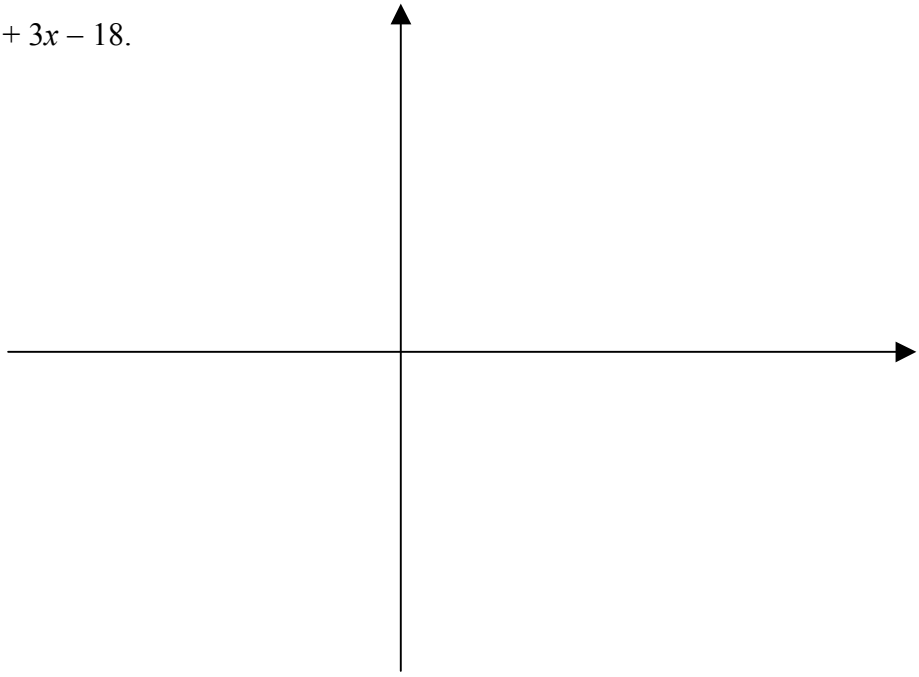
b) Sketch the graph of $y = x^2 + 3x - 18$.



2) a) Solve the equation $x^2 - 3x - 10 = 0$.

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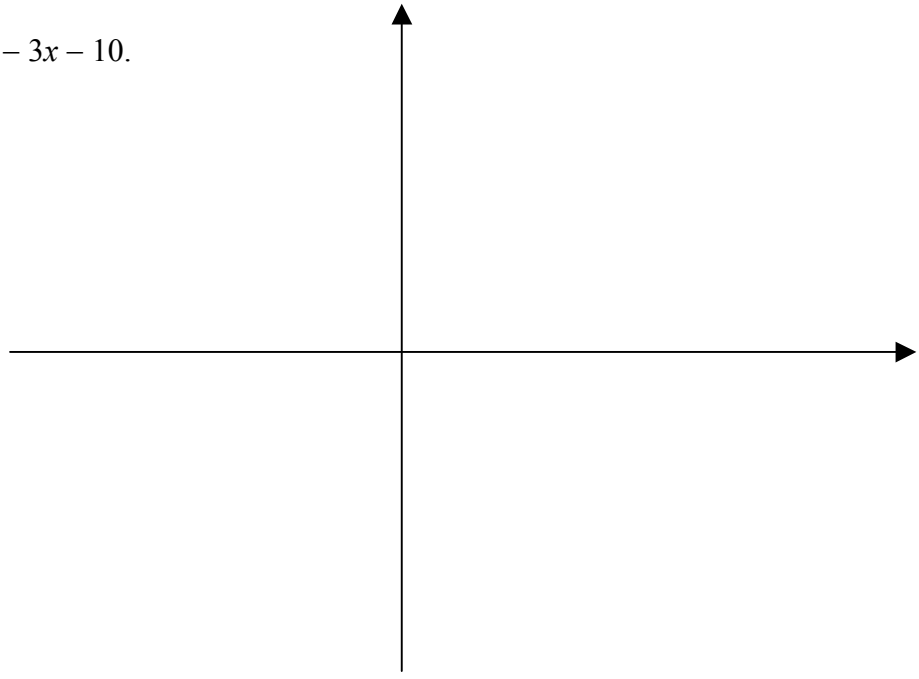
b) Sketch the graph of $y = x^2 - 3x - 10$.



3) a) Solve the equation $x^2 - 6x + 9 = 0$.

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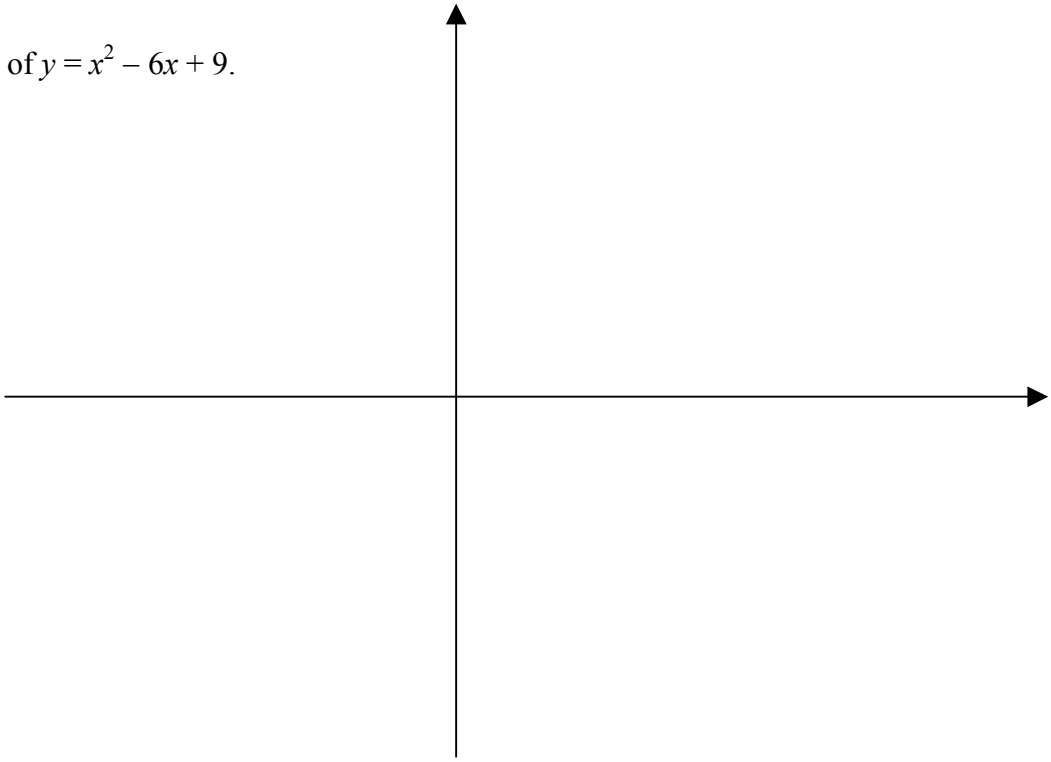
b) Sketch the graph of $y = x^2 - 6x + 9$.



4) a) Solve the equation $2x^2 - 13x - 7 = 0$.

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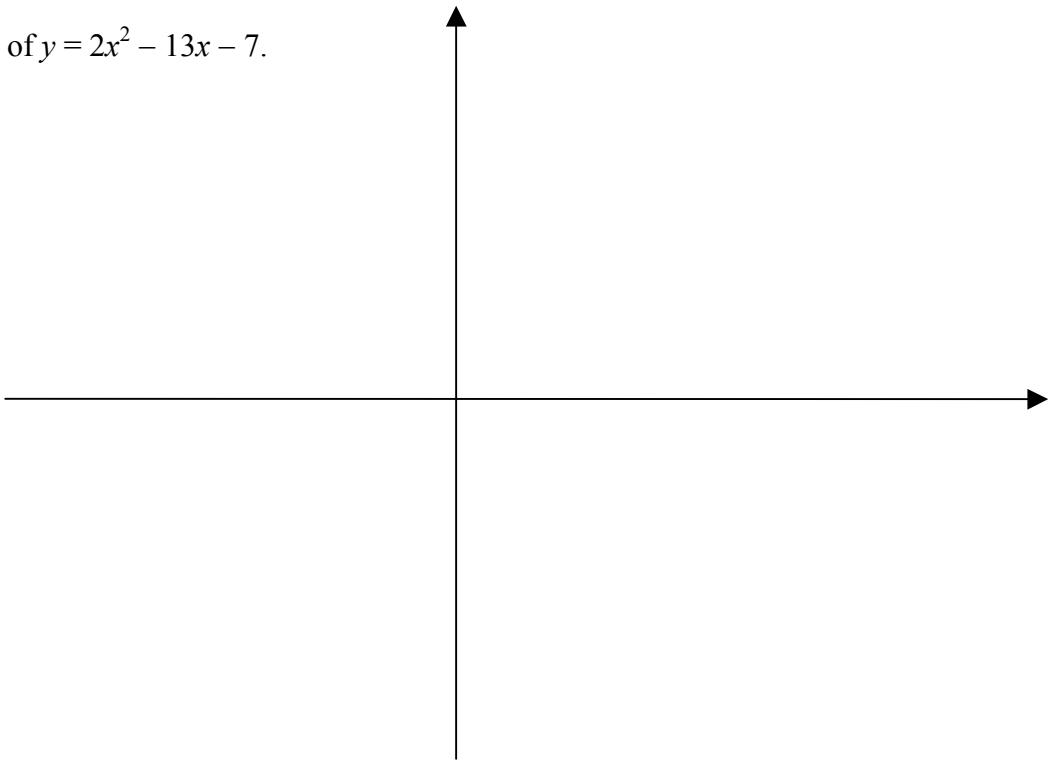
b) Sketch the graph of $y = 2x^2 - 13x - 7$.



5) a) Solve the equation $4x^2 - 4x - 15 = 0$.

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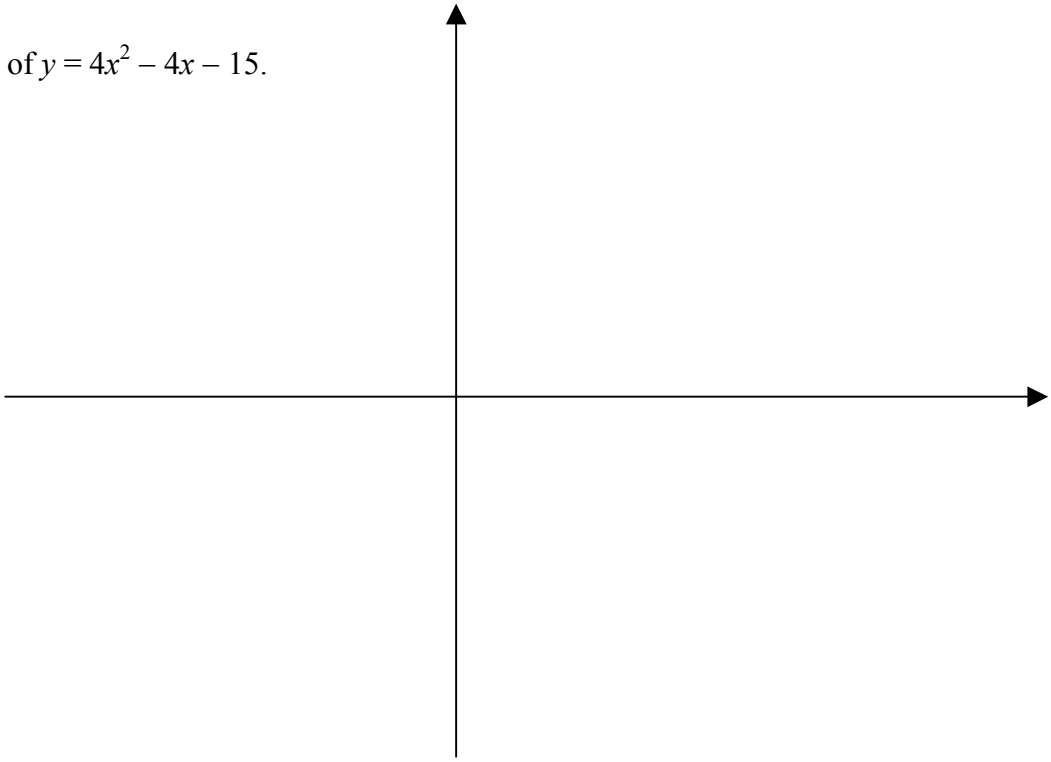
b) Sketch the graph of $y = 4x^2 - 4x - 15$.



6) a) Solve the equation $4x^2 + 13x - 12 = 0$.

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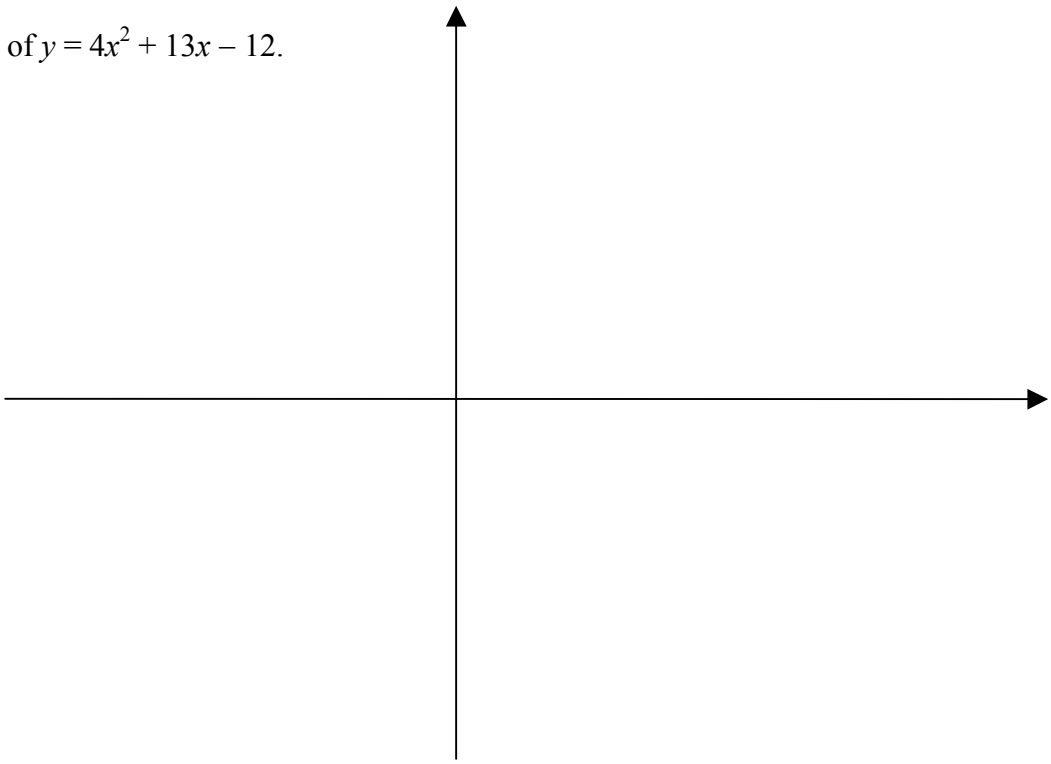
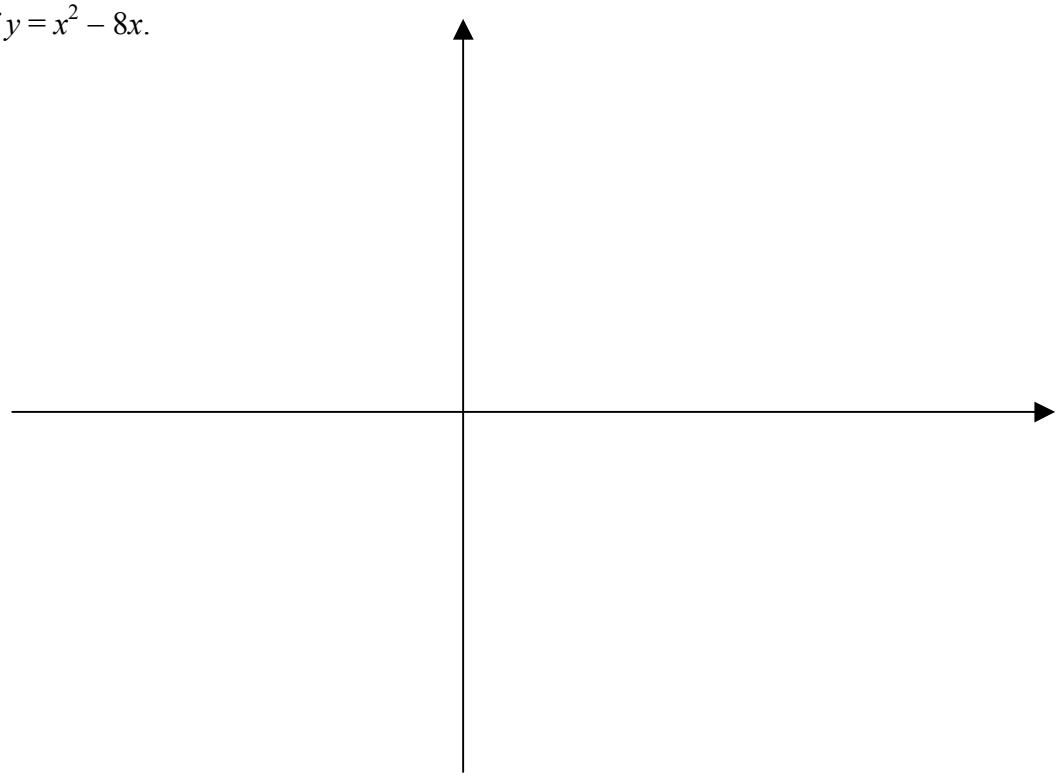
b) Sketch the graph of $y = 4x^2 + 13x - 12$.



7) Sketch the graph of $y = x^2 - 8x$.



8) Solve the following equations.

a) $x^2 - 6x = 0$

b) $2x^2 + 8x = 0$

c) $x^2 - 2x = 12 - x$

d) $5x^2 + 12x = x^2 - 7x + 5$

e) $x^2 - \frac{4}{9} = 0$

f) $\frac{12}{x + 2} = \frac{2x + 5}{3}$.

ANSWERS.

1) a) $x = 3$ or $x = -6$.

2) a) $x = -2$ or $x = 5$.

3) a) $x = 3$.

4) a) $x = -\frac{1}{2}$ or $x = 7$.

5) a) $x = -\frac{3}{2}$ or $x = \frac{5}{2}$.

6) a) $x = -4$ or $x = \frac{3}{4}$.

8) a) $x = 0$ or $x = 6$, b) $x = 0$ or $x = -4$, c) $x = -3$ or $x = 4$, d) $x = -5$ or $x = \frac{1}{4}$, e) $x = -6.5$ or $x = 2$.