## **Completing the Square and Sketching graphs**

Please write the following in completed square form.

- $x^2 + 12x 36 =$ 1
- $x^2 + 18x 43 =$ 2
- $x^2 2x + 5 =$ 3
- $x^2 + 6x 12 =$ 4
- 5  $x^2 - 10x - 8 =$
- $6 x^2 + 13x 23 =$
- $x^2 + 9x 43 =$ 7
- $x^2 11x + 5 =$ 8
- $x^2 + 5x 12 =$ 9
- 10  $x^2 x 8 =$

Sketch the graphs below. You need to be particularly careful of the roots, the turning points and the intercept.

- $x^2 + 9x 36 =$ 1
- $x^2 + 12x 64 =$ 2
- 3
- $x^2 6x + 5 =$  $x^2 + x 12 =$ 4
- $x^2 3x 28 =$

## **Completing the Square and Sketching graphs**

Please write the following in completed square form.

- $x^2 + 12x 36 =$
- 12  $x^2 + 18x 43 =$
- 13  $x^2 2x + 5 =$
- 14  $x^2 + 6x 12 =$
- $x^2 10x 8 =$ 15
- 16  $x^2 + 13x 23 =$
- 17  $x^2 + 9x 43 =$
- 18  $x^2 11x + 5 =$
- $x^2 + 5x 12 =$ 19
- $x^2 x 8 =$ 20

Sketch the graphs below. You need to be particularly careful of the roots, the turning points and the intercept.

- $x^2 + 9x 36 =$ 6
- $x^2 + 12x 64 =$ 7
- $x^2 6x + 5 =$ 8
- $x^2 + x 12 =$ 9
- 10  $x^2 3x 28 =$