

## 五專數學一期中練習

配方法~加一次項係數的一半

1.  $(x-3)^2 = x^2 - 6x + 9$  ,  $9 = \frac{6}{2}$ 的平方

2.  $x^2 - 6x + ( )^2 = (x - )^2$

5.  $x^2 + 10x + ( )^2 = (x + )^2$

3.  $x^2 - 16x + ( )^2 = (x - )^2$

6.  $x^2 - 8x + ( )^2 = (x - )^2$

4.  $x^2 + 6x + ( )^2 = (x + )^2$

7.  $y^2 - 4y + ( )^2 = (y - )^2$

8. 
$$\begin{aligned} 3x^2 - 24x + 10 &= 3(x^2 - 8x + 4^2) - 3 \cdot 4^2 + 10 \\ &= 3(x-4)^2 - 48 + 10 \\ &= 3(x-4)^2 - 38 \end{aligned}$$

9. 將下列二次多項式模仿第 8.題做配成完全平方的動作

$2x^2 - 12x + 25 =$

$3x^2 - 18x - 25 =$

$4x^2 - 16x + 15 =$

$-2x^2 - 12x + 25 =$

$5x^2 - 30x + 25 =$

$-x^2 - 12x + 25 =$

10.請判斷下列式子是幾元幾次多項式或方程式

$x+3y$  是\_\_元\_\_次\_\_\_\_\_

$-x^2 - 12x + 25 = 5$  是\_\_元\_\_次\_\_\_\_\_

$5x-10$  是\_\_元\_\_次\_\_\_\_\_

$-x^5 - 12xy + 25z = 75$  是\_\_元\_\_次\_\_\_\_\_

$-x^2 - 12x + 25$  是\_\_元\_\_次\_\_\_\_\_

$7x^2y^3 - 12xy + 25z + w = 85$  是\_\_元\_\_次\_\_\_\_\_

$x^3 + 5$  是\_\_元\_\_次\_\_\_\_\_

$12x + 25y - z = 105$  是\_\_元\_\_次\_\_\_\_\_

$x^2y + 5y^2 - 5$  是\_\_元\_\_次\_\_\_\_\_