

## Solving Quadratic: Homework

1. Solve the following quadratic equations:

(a)  $x^2 - 6x + 9 = 0$ .

(b)  $3x^2 + 24x + 48 = 0$ .

(c)  $3x^2 - 7x + 2 = 0$ .

(d)  $6x^2 + 8x + 2 = 0$ .

2. Solve the following equations:

(a)  $x^4 - 32x^2 + 256 = 0$ .

(b)  $8x^4 - 64x^2 + 128 = 0$ .

(c)  $x^6 - 256 = 0$ .

(d)  $x^8 - 2x^4 + 1 = 0$ .

3. Find sum of roots and product of roots for the following quadratic equations:

(a)  $7x^2 - 63 = 0$ .

(b)  $x^2 - 7x + 8 = 0$

(c)  $x^2 + 9x + 20 = 0$ .

(d)  $7x^2 + 14x - 21 = 0$ .

4. Construct quadratic equations for the following pairs of roots:

(a)  $-3$  and  $1$ .

(b)  $-2$  and  $2$ .

(c)  $9$  and  $2$ .

(d)  $4$  and  $3$ .

## 功課：解一元二次方程

1. 解下列方程：

(a)  $x^2 - 6x + 9 = 0$ .

(b)  $3x^2 + 24x + 48 = 0$ .

(c)  $3x^2 - 7x + 2 = 0$ .

(d)  $6x^2 + 8x + 2 = 0$ .

2. 解下列方程：

(a)  $x^4 - 32x^2 + 256 = 0$ .

(b)  $8x^4 - 64x^2 + 128 = 0$ .

(c)  $x^6 - 256 = 0$ .

(d)  $x^8 - 2x^4 + 1 = 0$ .

3. 求下列方程的根和及根積：

(a)  $7x^2 - 63 = 0$ .

(b)  $x^2 - 7x + 8 = 0$

(c)  $x^2 + 9x + 20 = 0$ .

(d)  $7x^2 + 14x - 21 = 0$ .

4. 根據下列的根，寫出相應的一元二次方程：

(a)  $-3$  和  $1$ .

(b)  $-2$  和  $2$ .

(c)  $9$  和  $2$ .

(d)  $4$  和  $3$ .