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.