

Mathematics 101 Worksheet 4.6-4.8

Problems

1) Factor completely.

a) $25 - y^2$

b) $a^3 + 27$

c) $a^2 + 25$

d) $x^3 - \frac{1}{64}$

e) $h^3 + 4h$

f) $5p^4q - 20q^3$

g) $-2z - 6 + 4z^2$

h) $2x^5 - 10x^4 + 6x^3 - 30x^2$

2) Solve $x^2 - 2x - 15 = 0$

3) Solve $3(x - 1)(x + 5)(2x - 9) = 0$

4) Find the x-intercept and the y-intercept of $f(x) = -4x^2 + 4$

5) A garden has an area of 320 ft^2 . Its length is 4 ft more than its width. What are the dimensions of the garden? (Solve using a quadratic equation)