

**Algebra G  
Homework**

Unit 7: Polynomials: GCF  
Homework Worksheet

Name: Key

Factor out the GCF!

$$1) \frac{4x^2}{2} - \frac{2x}{2} + \frac{12}{2}$$
$$2(x^2 - x + 6)$$

$$2) \frac{3x^2}{3} - \frac{12x}{3} + \frac{27}{3}$$
$$3(x^2 - 4x + 9)$$

$$3) \frac{5x^3}{5x} - \frac{15x^2}{5x} + \frac{25x}{5x}$$
$$5x(x^2 - 3x + 5)$$

$$4) \frac{3x^3}{x} - \frac{10x^2}{x} + \frac{14x}{x}$$
$$x(3x^2 - 10x + 14)$$

$$5) \frac{16x^5}{2x^3} - \frac{2x^3}{2x^3}$$
$$2x^3(8x^2 - 1)$$

$$6) \frac{27x^6}{27x^4} - \frac{27x^4}{27x^4}$$
$$27x^4(x^2 - 1)$$

$$7) \frac{40x^6}{10x} - \frac{30x^{10}}{10x} + \frac{20x}{10x}$$
$$10x(4x^5 - 3x^9 + 2)$$

$$8) \frac{3x^3}{x^2} - \frac{10x^2}{x^2} + \frac{14x^4}{x^2}$$
$$x^2(3x - 10 + 14x^2)$$

$$9) 2x^3 - 2$$
$$2(x^3 - 1)$$

$$10) 3x^2 - 12$$
$$3(x^2 - 4)$$