

11.1 Classwork: Literals, equations with multiple unknowns**Do not use a calculator or convert values to decimals**

Reference: Chili Math, Solving Literal Equations

<https://www.chilimath.com/lessons/intermediate-algebra/literal-equations/>**Simplify each expression by “collecting like terms”**

1. (a) $2x + 4 - x + 11$

(d) $2a + \sqrt{5} + 7a + 3\sqrt{5}$

(b) $5y - 4 - 7y + y$

(e) $x\sqrt{3} - x\sqrt{3} + x + 1$

(c) $14 + 5\pi - 2\pi + 4$

(f) $3\pi x + 4 + 2\pi x - 7$

Solve each equation for the unknown

One step.

2. (a) $2x = 12$

(c) $3a = \pi$

(b) $4z = -8$

(d) $2y = \sqrt{5}$

Two steps.

3. (a) $7x + 4 = 11$

(c) $4m - \sqrt{2} = 3\sqrt{2}$

(b) $-4b + 5 = -3$

(d) $2y - 3\pi = \pi$