## 11.3 Homework: Simplify radicals

## Do not use a calculator or convert values to decimals

## Simplify each expression

1. (a)  $\sqrt{45}$ 

(c)  $\sqrt{75} + 2\sqrt{3}$ 

(b)  $\sqrt{\theta^2} - +2\beta + 7\theta$ 

(d)  $2x\sqrt{7} + \sqrt{7x^2}$ 

## Solve for the unknown of interest

- 2. Solve for y
  - (a)  $x \sin \theta + y \cos \theta = 1$

(b)  $\frac{1}{k}x + \frac{1}{m}y = \frac{1}{n}$ 

- 3. Solve for  $\theta$ 
  - (a)  $\theta \sin x + \theta \cos x = 1$

(b)  $\theta^2 + \alpha^2 = \beta^2$