

Unit 8 Solving Equations & Inequalities

8.1 One-Step Equations

- Equation solving with rational (fraction or decimal) coefficients.

1. Solving $ax = b$

Ex. Solve:

a) $3x = -\frac{2}{3}$

b) $2x = \frac{3}{4}$

c) $-2\frac{1}{2}k = -3\frac{1}{2}$

d) $5.5b = -3.41$

Ex. A store sells mitts at 30% off the regular price. If the sale price was \$34.99 find the regular price.

2. Solving $\frac{x}{a} = b$

Ex. Solve:

a) $\frac{m}{3} = -\frac{2}{5}$

b) $\frac{x}{2} = \frac{5}{6}$

c) $\frac{u}{1.3} = 0.8$

3. Solving $\frac{a}{x} = b$

Ex. Solve:

a) $\frac{136.68}{m} = 13.4$

b) $\frac{4}{5} = \frac{-3}{2x}$

Ex. The formula for speed, s , is $S = \frac{d}{t}$ where d is distance and t is time. If a dogsled team averages a speed of 23.5 km/h, how long will it take to complete a 50 km circuit (nearest tenth)?