Honors Algebra 2

$$\Sigma$$

Extra Practice Problems

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Contents

Chapter 1

Equations and Inequalities

Equations

Solve each equation. Round decimal answers to 2 decimal places.

1. $-7x + 5 = -10x + 11$

2. $\frac{2}{3}x - 10 = \frac{5}{8}$

3. $-0.2x - 3(x + 1.4) = -5.2x + 1$

4. $1.3 + 2.1(6.3x + 12) = -19.7$

5. $\frac{1}{4}x + \frac{3}{7} = -2\left(x + \frac{3}{8}\right)$

Solve each for the variable indicated.

6. $F = ma$; for a

7. $PV = nRT$; for n

8. $m = \frac{y_2 - y_1}{x_2 - x_1}$; for y_2

Inequalities

Solve each inequality. Graph your answers on a number line.

1. $2(x + 2) \leq 4x - 2(x - 1)$

2. $-3.2x - 5(x - 1.5) > 7.7 + 1.8x$

1.1 Answer Key

Equations

1. $x = 2$

2. $x = \frac{255}{16}$

3. $x = 2.6$

4. $x = -3.49$

5. $x = -\frac{11}{21}$

6. $a = \frac{F}{m}$
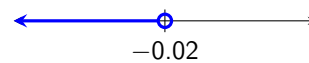
7. $n = \frac{PV}{RT}$

8. $y_2 = m(x_2 - x_1) + y_1$

Inequalities

1. $\emptyset$

2. $x < -0.02$

Chapter 2

Compound Inequalities

Solve each. Graph your answers on a number line.

1. $-3 < x - 8 \leq 12$

2. $7 \leq 2x - 5 < 18$

3. $x + 8 < 10$ or $5x - 9 \geq 26$

4. $x - 1.5 > 8$ or $-x + 2 > 9$

Answer Key

1. $5 < x \leq 20$

2. $6 \leq x < \frac{23}{2}$

3. $x < 2$ or $x \geq 7$

4. $x < -7$ or $x > \frac{19}{2}$

Chapter 3

Absolute Value Equations and Inequalities