

key

Practice Problems for Review in Class

Note: problems marked
w/ * are not ideal
Don't calculator test
problems.

Section: F3.1: Ratio and Proportion

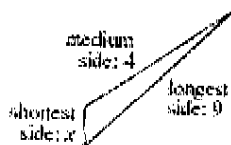
- Write the ratio of 20 minutes to 3 hours (1 hour is 60 minutes in length)

$$\frac{20 \text{ min}}{3 \text{ hrs}} = \frac{20}{180} = \frac{1}{9}$$

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- Solve $\frac{4.5}{x} = \frac{18}{35} \Rightarrow 4.5(35) = 18x \Rightarrow x = \frac{4.5(35)}{18} = \frac{35}{4}$

- Solve



$$\frac{x}{9} = \frac{4}{36} \Rightarrow x = \frac{4 \cdot 9}{36} = 1$$

Section: F3.2: Percent

- A reservoir is filled to 80% of capacity. Write 80% as a fraction.

$$\frac{80}{100} = \frac{4}{5}$$

- What is 60% of 480?

$$.60 \times 480 = 288$$

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- 774 is 15% of what?

$$.15x = 774$$

$$x = \frac{774}{.15} = 5160$$

Section: F4.1: Signed Numbers I

- Evaluate $47 + (-48) + 65 + (-74) + 2 + (-10) + 18$

$$\underbrace{-1}_{-1} + \underbrace{-9}_{-9} \rightarrow \underbrace{10}_{10} = 0$$

- Evaluate $-345 - (-211) - (-42) - 76$

$$\underbrace{-345 + 211}_{-134} + \underbrace{42 - 76}_{-34} = -168$$

- Evaluate $-5\frac{2}{3} - 6\frac{5}{6} - (-7\frac{3}{4}) + 2\frac{1}{3}$

$$LCD = 12$$

$$= -\frac{17}{3} - \frac{41}{6} + \frac{31}{4} + \frac{7}{3} = \frac{-68}{12} - \frac{82}{12} + \frac{93}{12} + \frac{28}{12}$$

- Solve $x + 1\frac{4}{5} = -3\frac{7}{15}$

$$x = -\frac{52}{15} - \frac{9}{15} = -\frac{52}{15} - \frac{27}{15} = -\frac{79}{15}$$

Section: F4.2: Signed Numbers II

- Evaluate -3^4

$$-81$$

- Evaluate $(-7)^2$

$$49$$

- Evaluate $3 \cdot (-6) \cdot 7 \cdot (-12)$

$$(-18) \cdot (-84) = 1512$$



- Evaluate $\frac{+36.5}{+6.25} = 5.84$

- Evaluate $(-4)^3 - [3 - (-8)]^2 + (-15) \cdot (-7)$

$$-64 - [11]^2 + 105 = -64 - 121 + 105 = -80$$

- Solve $-\frac{2}{3} \cdot x = -48$

$$\cdot 3 = -\frac{2}{3} \cdot x = 3 \cdot (-48)$$

$$x = \frac{3 \cdot -48}{2} = -72$$