

KEY

NAME

DATE

PERIOD

Unit 4, Lesson 1

Practice Problems

25

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1. Order from smallest to largest:

- Number of pennies in a stack that is 1 ft high *next smallest*
- Number of books in a stack that is 1 ft high *- take least largest*
- Number of dollar bills in a stack that is 1 ft high *- take most smallest*
- Number of slices of bread in a stack that is 1 ft high *next largest*

books
bread
pennies
dollar bills

2. Use each of the numbers 4, 40, and 4000 once to make true statements.

- a. The value of 40 ÷ 40.01 is close to 1
- b. The value of 4 ÷ 40.01 is much less than 1.
- c. The value of 4000 ÷ 40.01 is much greater than 1.

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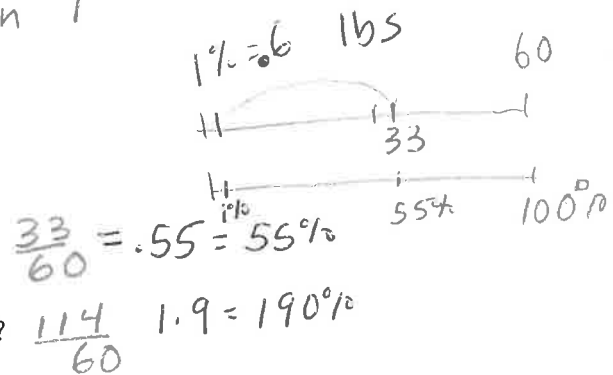
3. Without computing, decide whether the value of each expression is much smaller than 1, close to 1, or much greater than 1.

- a. $100 \div \frac{1}{1000}$ *very small greater than 1*
- b. $50\frac{1}{3} \div 50\frac{1}{4}$ *close to 1*
- c. $4.7 \div 5.2$ *close to 1*
- d. $2 \div 7335$ *smaller than 1*
- e. $2,000,001 \div 9$ *larger than 1*
- f. $0.002 \div 2,000$ *smaller than 1*

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4. A rocking horse has a weight limit of 60 pounds.

- a. What percentage of the weight limit is 33 pounds?
- b. What percentage of the weight limit is 114 pounds?
- c. What weight is 95% of the limit?



.95 $.95 \times 60 = 57 \text{ lbs}$ OR $95 \text{ lbs} \times .6 = 57 \text{ lbs}$

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5. Compare using $>$, $=$, or $<$.

a. $0.7 = 0.70$

b. $0.03 + \frac{6}{10} < 0.30 + \frac{6}{100}$

c. $0.9 > 0.12$

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6. Diego has 90 songs on his playlist. How many songs are there for each genre?

Mental Math
10% = 9

- a. 40% rock = $.4 \times 90 = 36$ $9 \times 4 = 36$ songs
- b. 10% country = $.1 \times 90 = 9$ $9 \times 1 = 9$ songs
- c. 30% hip-hop = $.3 \times 90 = 27$ $9 \times 3 = 27$ songs
- d. The rest is electronica = $.2 \times 90 = 18$ $9 \times 2 = 18$ songs

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7. A garden hose emits 9 quarts of water in 6 seconds. At this rate:

- a. How long will it take the hose to emit 12 quarts?
- b. How much water does the hose emit in 10 seconds?

a. $\frac{6}{9} \times \frac{12}{1} = \frac{72}{9} = 8 \text{ sec}$

Q	Sec
9	6
12	8
10	10

$\div 9 \left(\begin{array}{l} 9 \\ 1 \end{array} \right) \div 6 \left(\begin{array}{l} 6 \\ 1 \end{array} \right) = 9$
 $\times 12 \left(\begin{array}{l} 12 \\ 1 \end{array} \right) \times 10 \left(\begin{array}{l} 10 \\ 1 \end{array} \right)$
 $\times 10 = 90$
 b. $\frac{1}{6} = 15 \text{ quarts}$

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