

7th Grade Assignment – Week #17

Individual Work

- Do as much as you can with the problems on **Percents Sheet #2**.
- *Flashcards!* Practice daily the “Percents to Fraction Conversion Flashcards”. (This was listed at the end of last week’s assignment.)

Group Assignments:

For Tuesday: Puzzles!

- 1) Jane and John started with a total of 30 cookies between them. John then ate 3 of his cookies, which left him with exactly twice as many cookies as Jane. How many cookies did Jane have?
- 2) Lori is on the middle step of a staircase. She goes down 3 steps, up 6 steps, then down 11 steps. She is now on the bottom step of the staircase. How many steps does the staircase have?
- 3) If Jill subtracts 7 from her favorite number, multiplies by 10, and adds 7, the result is 47. What is her favorite number?
- 4) If Lexie takes her favorite number, adds 5, divides by 6, subtracts 7, multiplies by 73, and adds 8, she ends up with 8. What is Lexie’s favorite number?

For Thursday:

- 5) Tristan lives near Melbourne, Australia. James lives in Hawaii. They are both in Mr. Messner's tutorial session, which always starts at 4pm MT (Colorado time). Daylight Savings Time makes it so that the tutorial times for Tristan and James change at various points of the year. During the 2020-21 USA school year, the clocks change in Colorado on November 1 and on March 14. The clocks change in Australia on October 4 and April 4. The clocks never change in Hawaii. At the start of the school year, Melbourne was 16 hours ahead of Colorado, and Hawaii was 4 hours behind Colorado. Determine the various (local) times throughout the school year that both Tristan and James need to attend their tutorial session.
- 6) Find each square root.
 - a) $\sqrt{490000}$
 - b) $\sqrt{1.44}$
 - c) $\sqrt{0.0144}$
 - d) $\sqrt{1444}$
 - e) $\sqrt{4356}$
 - f) *Challenge!* $\sqrt{123904}$

Percents – Sheet #2

1) First, look through the problems, and then circle those that are easy. Do those in your head. Show your work for the others on a separate sheet.

a) What is 25% of 320?

b) What is 45% of 320?

c) What is $33\frac{1}{3}\%$ of 1800?

d) What is 50% of 72?

e) What is 6% of 79?

f) What is 84% of 619?

g) What is 10% of 619?

h) What is 1% of 43,000?

i) What is 20% of 45?

j) What is 0.35% of 45?

k) What is 125% of 4800?

l) What is 8.1% of 48000?

2) Try to do each problem by writing it as a fraction, and then changing it into a percent. Divide only if necessary, showing your work on a separate sheet.

a) 24 is what percent of 48?

b) 25 is what percent of 75?

c) 11 is what percent of 90?

d) 700 is what percent of 7000?

e) 140 is what percent of 210?

f) 4500 is what percent of 6000?

g) 35 is what percent of 56?

h) 3500 is what percent of 4200?

i) 527 is what percent of 850?

j) 96 is what percent of 120?

3) Convert into a percent.

a) $\frac{3}{10}$

b) $\frac{1}{4}$

c) $\frac{3}{5}$

d) $\frac{71}{100}$

e) $\frac{1}{3}$

f) $\frac{1}{2}$

g) $\frac{9}{10}$

h) $\frac{3}{100}$

i) $\frac{2}{5}$

j) $\frac{5}{6}$

k) $\frac{7}{8}$

l) $\frac{2}{3}$

m) 0.09

n) 0.3

o) 0.38

p) 0.99

q) 0.8

r) 0.45

4) Convert each percentage into both a fraction and a decimal.

a) 80%

b) $37\frac{1}{2}\%$

c) 4%

d) 70%

e) 75%

f) 5%

g) $16\frac{2}{3}\%$

5) What is ...

a) 300 increased by 50%?

b) 300 decreased by 50%?

c) 300 increased by 10%?

d) 300 decreased by 10%?

Mental Math

6) $23 \cdot 27 =$

7) $81 \cdot 89 =$

8) $44 \cdot 46 =$

9) $9000 \div 15 =$

10) $280 \div 3.5 =$

11) $24 \cdot 45 =$

12) $120 \cdot 15 =$

13) $3000 \div 25 =$

Review

14) $76 \text{ ft} = \underline{\hspace{2cm}} \text{ yd}$

15) $9 \text{ qt} = \underline{\hspace{2cm}} \text{ c}$

16) $0.06 \text{ m} = \underline{\hspace{2cm}} \text{ mm}$

17) $9 \text{ pt} = \underline{\hspace{2cm}} \text{ qt}$

18) Convert this ratio to decimal form.

$B:G = 13:5$

19) Convert this ratio to whole number form.

$H:D = 3.4:1$

20) A recipe for salad dressing calls for 1 cup of oil and $2\frac{1}{2}$ fl. oz. of vinegar.

a) What is the ratio of oil to vinegar in whole number form?

b) What is the ratio of oil to vinegar in decimal form?

c) If the recipe is to be enlarged, how much oil is needed for 15 fl.oz. of vinegar?

21) How can \$216 be split between three people in a ratio of 2:3:4?