

6th Grade
Dec 10, 2020

Please get out your
THQ to turn in.

Today we will:
-review Monday's
worksheet
-work in ALEKS

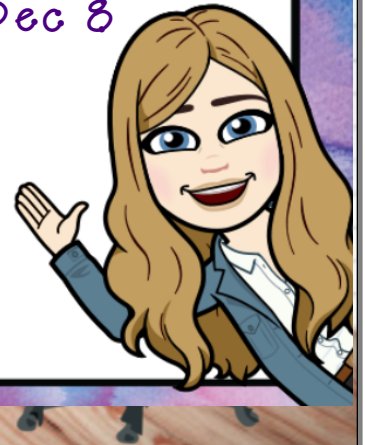
*6P you will go over
to the church at
about 10:45 to
record your music

HOMEWORK:

ALEKS assignment on
ratios and rates due
by 11:59 TONIGHT

Video notes

ALEKS 60 min and 5
topics due Dec 8



Name _____
 Unit _____ Lesson _____ Due Date _____

Lesson 3 Skills Practice

Rates

Write each rate as a unit rate.

1. 14 hours in 2 weeks

$$\frac{14}{2} \div \frac{2}{2} = \frac{7 \text{ hours}}{1 \text{ week}}$$

2. 36 pieces of candy for 6 children

$$\frac{36}{6} \div \frac{6}{6} = \frac{6 \text{ Pieces}}{1 \text{ Child}}$$

3. 8 teaspoons for 4 cups

$$\frac{8}{4} \div \frac{4}{4} = \frac{2 \text{ teas. per cup}}{1 \text{ cup}}$$

4. 8 tomatoes for \$2

$$\frac{8}{2} \div \frac{2}{2} = \frac{4 \text{ tomatoes}}{1 \text{ dollar}}$$

5. \$28 for 4 hours

$$\frac{\$28}{4} \div \frac{4}{4} = \frac{\$7}{1 \text{ hr}}$$

6. 150 miles in 3 hours

$$\frac{150 \text{ mi}}{3} \div \frac{3}{3} = \frac{50 \text{ mi}}{1 \text{ hr}}$$

7. \$18 for 3 CDs

$$\frac{\$18}{3} \div \frac{3}{3} = \frac{\$6}{1 \text{ CD}}$$

8. 48 logs on 6 trucks

$$\frac{48 \text{ logs}}{6} \div \frac{6}{6} = \frac{8 \text{ logs}}{1 \text{ truck}}$$

9. Write the ratio \$12 dollars for 3 tickets as a unit rate.

$$\frac{\$12}{3} \div \frac{3}{3} = \frac{\$4}{1 \text{ ticket}}$$

10. **CHORES** Wayne raked 30 bags of leaves in 3 hours. If he raked the same number of bags each hour, how many bags of leaves did he rake in one hour?

$$\frac{30}{3} \div \frac{3}{3} = \frac{10 \text{ bags}}{1 \text{ hr}}$$

11. **QUIZZES** Mr. Ordonez gives his math students 34 quizzes during 17 weeks of school. If he gave the same number of quizzes each week, how many quizzes does Mr. Ordonez give his students every week?

$$\frac{34}{17} \div \frac{17}{17} = \frac{2 \text{ quizzes}}{1 \text{ week}}$$

12. **TOURS** It cost Mrs. Sapanaro \$245 for her and 6 people to take a day-long guided tour of the Everglades. How much does the guided tour cost per person?

$$\frac{\$245}{7 \text{ people}} \div \frac{7}{7} = \frac{\$35}{\text{person}}$$

7 people!

13. **RUNNING** Stephanie ran 1 lap in 6 minutes. At this rate, how far would she run in 30 minutes?

1 → 6
2 → 12
3 → 18
4 → 24
5 → 30

5 laps

$$\frac{1 \text{ lap}}{6 \text{ min}} \times \frac{5}{5} = \frac{5}{30} \text{ min}$$

14. **ALTITUDE** In general, the air temperature decreases 12°F for every 4,000 feet increase in altitude. If a hiker climbs 3,000 feet, by how much can she expect the temperature to decrease?

$$4000 \overline{) 12.000}$$

$$\begin{array}{r} 3000 \\ \times 0.003 \\ \hline 9000 \end{array}$$

$$\frac{12^\circ}{4000} \div \frac{4}{4} = \frac{3^\circ}{1000}$$

3 × 3 = 9°

15. **PURCHASES** One bottle of shampoo costs \$6 for 8 ounces. A second bottle costs \$4 for 5 ounces of shampoo. Which has the lower unit rate? How much lower?

75¢
80¢

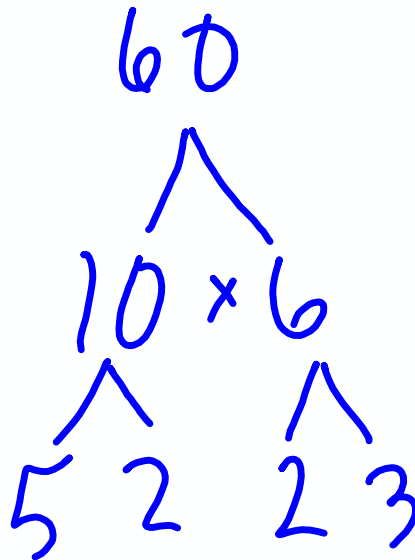
$$\frac{\$6}{8} \div \frac{2}{2} = \frac{3}{4}$$

1st one has lower unit rate, by \$0.05

$$\frac{\$4}{5 \text{ oz}}$$

$$\begin{array}{r} \$0.80 \\ 5 \overline{) 4.00} \\ \underline{40} \\ 00 \end{array}$$

45
^



90
^

$2 \times 2 \times 3 \times 5$

Ratio

4:5


OR

$\frac{4}{5}$

OR

4 to 5




 Name _____
 VIDEO NOTES Unit ____ Lesson ____ Due Date ____

EQUVALENT RATIOS

Two ratios or rates are equal (or equivalent) when...

1. ...they create the same Unit rate ;

WE DO: 18 vocab words in 2 hours
 ✓ 27 vocab words in 3 hours

$$\frac{18}{2} \div \frac{2}{2} = \frac{9 \text{ words}}{1 \text{ hour}} \quad \frac{27}{3} \div \frac{3}{3} = \frac{9 \text{ words}}{1 \text{ hour}}$$

✓ yes, they are = ratios.

2. ...they create equivalent fractions ; OR

WE DO:

20 out of 45 people go to a concert
 10 out of 20 people go to a movie

$$\frac{10}{20} \times \frac{2}{2} = \frac{20}{40} \neq \frac{20}{45}$$

3. ...they have equal cross products .

WE DO:

$$\frac{5 \text{ dogs}}{6 \text{ cats}} = \frac{7 \text{ dogs}}{8 \text{ cats}} \quad 5 \times 8 \stackrel{?}{=} 6 \times 7$$

$$40 \neq 42$$

MORE EXAMPLES**Lesson 6 Extra Practice: Equivalent Ratios**

Determine if each pair of ratios or rates is equivalent.

WE DO:

\$16 for 2 tickets; \$40 for 5 tickets

$$\frac{\$16}{2} \div \frac{2}{2} = \frac{\$8}{1}$$

$$\frac{\$40}{5} \div \frac{5}{5} = \frac{\$8}{1}$$

✓ they are =.

8 out of 10 boys play a sport; 25 out of 30 boys play a sport

$$\frac{8}{10} \times \frac{3}{3} = \frac{24}{30} \neq \frac{25}{30}$$

X, they are not =.

5 minutes to read 9 pages; 50 minutes to read 30 pages

~~$$\frac{5}{9} \neq \frac{50}{30}$$~~

$$5 \times 30 \stackrel{?}{=} 9 \times 50$$

$$150 \neq 450$$

X, they are not =.

YOU DO: (You may choose which of the 3 ways)

3 teachers for 63 students; 7 teachers for 147 students

Lusita earned \$85 for 8 hours of babysitting. Avery earned \$125 for 11 hours of babysitting. Are the rates equivalent? Explain your reasoning.

Miss Ferguson recorded 17 absences in her class during the first 30 days of school. During the last 60 days of school, she recorded 42 absences. Are the rates equivalent? Explain your reasoning.