12/6/16 CCM6+7+

1. Write in agenda...HW is study for TEST TOMORROW!

2. Get out your study guide to check (p.24-26).

3. Complete Tues and Wed warm-ups.

Warm-ups

TUES

1) $2(9.25) + 2(14.5)$

$18.5 + 29$

47.5

2) $499 - 12(30)$

$499 - 360$

139

WED

1) GCF=8 boxes

2) $7(2)(2) + 5(2)(2)$

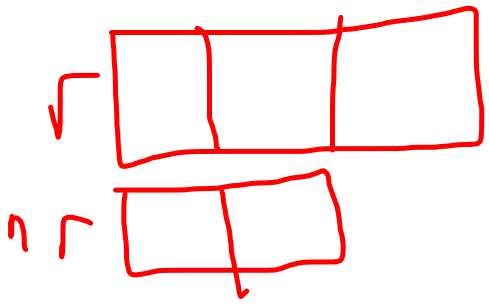
$28+20= 48\ cm^3$

QUIZ Questions?

7. Heath $.47 Hershey $.42

5. p to w

$\frac{3r}{5 \text{ all}} = \frac{24 \text{ red}}{40}$ 40−24= 16 not red



6. $\frac{2e}{12w} = \frac{7e}{42w}$ ÷6 ÷6

✓HW

Common Core Math 6+7+ - Unit 7 STUDY GUIDE (Calculator Active)

For each problem, be sure to follow the directions to determine the answer.

All fractional answers should be in simplest form.

1. A parking lot contains 18 American cars and 63 Foreign cars. Write the ratio of American cars to Foreign cars in simplest form.

$\frac{18}{63} = \frac{2}{7}$

2. During a trip, a car traveled 249.2 miles in 4 hours. How many miles per hour did the car travel?

$\frac{249.2}{4} = 62.3$ mph

3. Two drinks are on sale at a store.

Drink A costs \$1.28 for 16 ounces. Drink B costs \$2.16 for 24 ounces. Determine the unit rates, and find which drink costs less per ounce.

A \$.08/oz B \$.09/oz

4. Determine whether the following ratios are proportional:

$\frac{14}{19}$ and $\frac{126}{171}$ (·9)

a. no b. yes

5. What factor is 12 multiplied by to create a proportional relationship? What is the value of n?

$\frac{12}{n} = \frac{54}{72}$ (×4.5)

$n = 16$

6. Seven bananas contain 3.5 milligrams of Vitamin B6. How many bananas contain 9.31 milligrams of Vitamin B6? Round to the nearest tenth.

$\frac{7}{3.5} = \frac{18.6}{9.31}$ (18.6)

✓ HW

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7. A worker at a tire shop can install 4 new tires in 1.3 hours. At this rate how long would it take the worker to install new tires for 75 cars if each car will receive 4 tires?

$\frac{1 \text{ car}}{1.3 \text{ h}} = \frac{75 \text{ cars}}{97.5 \text{ h}}$

8. Terry paid $8.75 for 5 pounds of pears. At this rate how many pounds of pears could she buy with $61.25?

$\frac{8.75}{5} = \frac{61.25}{35}$

a. 7 lb b. 12 lb

c. 13 lb d. 35 lb

9. **Draw a tape diagram and use it to solve the problem.** Trail mix was made by combining almonds and grapes in a 4:3 ratio. If 21 ounces of grapes were used, how many ounces of almonds were used?

$\frac{4a}{3g} = \frac{28}{21}$

10. **Draw a double number line diagram and use it to solve the problem**: A group of students will be taking a field trip and there needs to be one chaperone for every 8 students. How many chaperones are needed for 136 students?

11. The scale of a map is 2 in = 135 mi. If two cities are 3.5 in apart on the map, how many miles apart are the cities?

$\frac{2}{135} = \frac{3.5}{236.25}$ mi

12. The scale of a map is 1.25 in. = 80 mi. If two cities are 4.75 inches apart on the map, how many miles apart are the cities?

$\frac{1.25}{80} = \frac{4.75}{304}$ mi

✓ HW

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13. A girl that is 4 feet tall is standing next to the Empire State Building in New York City. The girl's shadow is 3.2 feet long. If the Empire State Building is 1454 feet tall, how long would its shadow be?

$\frac{4}{3.2} = \frac{1454}{1163.2}$ ft

14. The following chart shows the pay a babysitter made for different hours of work. Does the babysitter's pay represent a proportional relationship?

NO

Number of hours	Pay
0	$0
2	$15
3	~~$24.75~~ 22.50
11	$107.25

×7.5 →

17) North Carolina Public Schools spends about $126,000 for every 15 students. If Wake County Schools spends money proportionally to this amount, how much will they spend for 7500 students?

$\frac{126000}{15} = \frac{63 \text{ million}\$}{7500}$

18) A slug can travel at **0.013 meters per second.** What would its speed be in kilometers per hour?

Use dimensional analysis.

$\frac{.013 m}{1 s} \cdot \frac{1 km}{1000 m} \cdot \frac{3600 s}{1 h} = .0468 \frac{km}{h}$

19) In the U.S., a common speed limit is 55 miles per hour. Does this correspond (approximately) to a European speed limit of a) 40 km/h b) 60 km/h c) 80 km/h? *(1 mi/h ≈ 1.61 km/h)*

$\frac{55 mi}{1 h} \cdot \frac{1.61 km}{1 mi} = 88.55 \frac{km}{h}$ d) 90 ?

20) A typical student ruler is 12 inches long. How long would it be in centimeters? *(1 cm ≈ 0.39 in)*

$\frac{.39}{1 cm} = \frac{12 in}{\square cm}$ 30.77 cm

21) On the bottom of a food container you can often read its capacity. One such container said 64 oz. Is it bigger than one that is 2.2 L? If so, how much larger? If not, how much smaller?

(1 L ≈ 33.814 oz)

$\frac{1 L}{33.814} = \frac{1.89}{64}$ $\frac{2.2 L}{74.39 oz} = \frac{1 L}{33.814}$ 10.39 oz smaller

0.31 L smaller

22) Angela weighs 56 kg, Theresa weighs 128 lb, Judie weighs 137 lb, and Elizabeta weighs 60 kg. Write the girls in order from lightest to heaviest. *(1 lb ≈ 0.454 kg)*

58kg 60kg

$\frac{128}{58.11} = \frac{1}{.454}$ $\frac{137}{62.00} = \frac{1}{.454}$ A, T, E, J

23) 1 marathon is 26.21875 miles. How long is a half-marathon in kilometers? *(1 mi ≈ 1.609 km)*

$\frac{1 mi}{1.609} = \frac{13.109375}{21.09}$ km

What else do you want to review?

Kahoot game