# homework due Fri. 1/20 Test MADULE Representing Ratios and Rates

Module Quiz: B

1. Which of the following ratios is **not** equivalent to the other three?

 $A \quad \frac{2}{3}$ 

C 4 to 6

B  $\frac{4}{5}$ 

D 8 to 12

2. In Timra's math class, there are 12 boys and 15 girls. Which of the following is the ratio of boys to girls in Timra's math class?

A  $\frac{12}{27}$ 

 $C = \frac{15}{12}$ 

B  $\frac{12}{15}$ 

 $D = \frac{27}{12}$ 

3. Kimmy bought a 5-kilogram can of peanuts for \$4.50. What is the unit price?

A \$0.05/kg

C \$0.50/kg

B \$0.45/kg

D \$0.90/kg

4. There are 250 bricks used to build a wall that is 20 feet high. How many bricks will be used to build a wall that is 30 feet high?

A 260

C 375

B 330

D 400

5. Johanna can jog 3,000 feet in 5 minutes. If she jogs at the same rate, how many feet can she jog in 8 minutes?

A 4,000 ft

C 5,600 ft

B 4,800 ft

D 6,400 ft

6. Andrea deposits \$350 dollars in her checking account on Tuesday. On Wednesday she withdraws \$100. On Thursday she deposits \$75. Which of the following shows the change in Andrea's account from Tuesday to Thursday?

A 350 – 100 – 75

B 350 - 100 + 75

C 350 + 100 - 75

 $D \ \ 350 + 100 + 75$ 

7. Alexa is making a recipe that requires
1 cup of water and 4 cups of flour. Which
of the following combinations shows the
same ratio of water to flour?

A 2 cups of water to 3 cups of flour

B 2 cups of water to 4 cups of flour

C 2 cups of water to 8 cups of flour

D 3 cups of water to 6 cups of flour

8. Misti bought a package of three T-shirts for \$18.75. What is the unit price per T-shirt?

A \$6.25

C \$12.50

B \$6.50

D \$15.75

9. Which of the following ratios is equivalent to 2:3?

 $A = \frac{1}{2}$ 

 $C = \frac{12}{13}$ 

B  $\frac{4}{6}$ 

 $D = \frac{20}{25}$ 

10. Which of the following is equal to the absolute value of 5 + 7 - 15?

A -3

C 3

В 0

D 27

11. Arjun can type 40 words per minute.

Dalia can type 55 words per minute. If
Arjun and Dalia each type for 30 minutes,
about how many more words will Dalia
type?

A 45

C 900

B 450

D 1,200

12. The local farmer's market sells a 4-pound basket of apples for \$5.60. Each apple weighs about 4 ounces. What is the price per apple?

A \$0.35

C \$0.45

B \$0.40

D \$0.50



#### **Representing Ratios and Rates**

- 13. The ratio of white marbles to blue marbles in Connie's bag of marbles is equal to 2:3. There are more than 20 marbles in the bag. What is a possible number of white marbles and blue marbles in the bag?
- 14. Javier bought a 20-ounce smoothie that contains 450 total calories. How many calories does the smoothie contain per ounce?

15.

#### Gemma's Soup Recipe

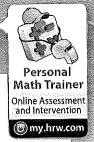
Ingredient	Quantity (c)			
Water	4			
Chicken Stock	3.5			
Mixed Vegetables	8			
Spices	1			

Gemma's soup recipe is shown in the table above. What is the ratio of chicken stock to mixed vegetables? Express the ratio as a fraction in simplest form and as a decimal.

- 16. The ratio of elephants to tigers at the local zoo is 1:4. There are 16 elephants at the zoo. How many tigers are there?
- 17. One afternoon, Kassim's sandwich shop sells 15 sandwiches in 45 minutes. If the shop continues to sell sandwiches at the same rate, about how many sandwiches will the shop sell in 3 hours?

- 18. Barry's deck of cards contains 40 blue cards and 70 red cards. Max's deck of cards contains the same number of blue cards, but the ratio of blue cards to red cards is 8:9. How many total cards does Max's deck of cards contain?
- 19. Anabel uses 5 gallons of gas to drive 140 miles on the highway. If she travels at the same rate, how many miles can she drive on 7 gallons of gas?
- 20. Kellan's lemonade recipe uses 4 scoops of lemonade powder for every 2.5 cups of water. Kellan uses 10 scoops of lemonade powder to make a batch of lemonade. How much water should he use?
- 21. The ratio of forks to knives in Mabel's kitchen drawer is 4 to 5. There are 16 forks in the drawer. How many knives are there?
- 22. On Monday, Janelle earned \$16 for 2 hours of babysitting. Getting paid the same rate, she earned \$40 for babysitting on Saturday. How many hours did Janelle babysit on Saturday?
- 23. Karen read 20 pages of her book in a half hour. If she reads for 3 hours at that same rate, about how many pages of her book can Karen read?

# acv to Go On?



#### 8.1 Comparing Additive and Multiplicative Relationships Complete each table and describe the rule for the relationship.

1.	Meal time	12:00	12:30	1:00	
	Swim time	12:45	^***	74****	2:15

2.	Sets of pens	2	3	4	5
	Number of pens		9		15

#### 8.2 Ratios, Rates, Tables, and Graphs

3. Charlie runs laps around a track. The table shows how long it takes him to run different numbers of laps. How long would it take Charlie to run 5 laps?

Number of laps	2	4	6	8	10
Time (min)	10	20	30	40	50

#### 8.3 Solving Problems with Proportions

4. Emily is entering a bicycle race for charity. Her mother pledges \$0.40 for every 0.25 mile she bikes. If Emily bikes 15 miles, how much will her

mother donate? \_\_\_\_\_

#### 8.4 Converting Measurements

Convert each measurement.

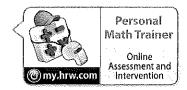
## **ESSENTIAL QUESTION**

**9.** Write a real-world problem that could be solved using a proportion.



#### **MODULE 8 MIXED REVIEW**

### **Texas Test Prep**



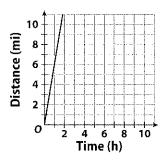
#### **Selected Response**

**1.** The table below shows the number of babies and adults at a nursery.

Babies	8	12	16	20
Adults	2	3	4	5

Which represents the number of babies?

- (A) adults  $\times$  6
- (B) adults  $\times 4$
- (C) adults +4
- $\bigcirc$  adults +6
- **2.** The graph represents the distance Manuel walks over several hours.



Which is an ordered pair on the line?

- (A) (2.5, 14)
- **(**C) (2.25, 12)
- (B) (1.25, 5)
- **(D)** (1.5, 9)
- **3.** On a map of the city, 1 inch represents 1.5 miles. What distance on the map would represent 12 miles?
  - (A) 6 inches
  - (B) 8 inches
  - (C) 12 inches
  - (D) 18 inches

**4.** The table below shows the number of petals and leaves for different numbers of flowers.

Petals	5	10	15	20
Leaves	2	4	6	8

How many petals are present when there are 12 leaves?

- (A) 25 petals
- (B) 30 petals
- © 35 petals
- (D) 36 petals
- **5.** A recipe calls for 3 cups of sugar and 9 cups of water. If the recipe is reduced, how many cups of water should be used with 2 cups of sugar?
  - (A) 3 cups
  - (B) 4 cups
  - © 6 cups
  - (**D**) 8 cups

#### **Gridded Response**

**6.** Janice bought 4 oranges for \$3.40. What is the unit price?

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$\oplus$	0	0	0	0		0	0	
$\oplus$ $\bigcirc$	1	1	1	1		0	1	
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	8	8	8	8		8	8	
	9	9	9	9		9	9	