TEST NAME: **Ratios and Proportions Review**
TEST ID: **750617**
GRADE: **07 - Seventh Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **Shared Classroom Assessments**

1. **Jermaine wants to know how fast he is traveling in a school bus, but he cannot see the speedometer. He records that the bus travels 1 mile in 75 seconds. How fast is Jermaine traveling in miles per hour?**

   A.   45 mph

   B.   48 mph

   C.   57 mph

   D.   60 mph

2. A recipe for 48 biscuits uses $2\frac{2}{3}$ cups of biscuit mix. How many biscuits are made from each cup of biscuit mix?

   A.   6 biscuits

   B.   18 biscuits

   C.   30 biscuits

   D.   128 biscuits

3. A pizza shop uses $\frac{1}{2}$ ounce of pepperoni for every $\frac{1}{4}$ of a large pizza. How much pepperoni does one large pizza have?

   A. $\frac{1}{8}$ ounce

   B. $\frac{1}{2}$ ounce

   C.   1 ounce

   D.   2 ounce

4. Edward can run $\frac{1}{2}$ mile in 300 seconds. What is Edward's unit rate?

A. $\frac{1}{10}$ mile per minute

B. $\frac{2}{5}$ mile per minute

C. $2\frac{1}{2}$ mile per minute

D. 10 mile per minute

5. Sally paid $1.50 for $2\frac{1}{2}$ pounds of apples at the Grocery Mart. Fred paid $1.95 for 3 pounds of apples at the Corner Fruit Stand.

Part A Who paid less money per pound for their apples, Sally or Fred? Show the computations to find each unit rate.

Part B John went to the Grocery Mart and purchased $5\frac{1}{2}$ pounds of apples. How much, in dollars, did John pay for the apples? Show or explain your work.

Part C Write an equation that can be used to compute the total cost, in dollars (*y*), to purchase any total weight, in pounds (*x*), of apples at the Corner Fruit Stand.

6. A person can read 24 pages of a book in $\frac{1}{3}$ of an hour. What is this person's reading rate in pages per hour?

A. 8
B. 12
C. 48
D. 72

7. In a fireplace, about $\frac{3}{4}$ of an 18-inch log will burn in $\frac{1}{3}$ of an hour. How many hours will it take to burn $2\frac{1}{2}$ logs?

   A. $\frac{3}{4}$ of an hour

   B. $\frac{9}{10}$ of an hour

   C. $1\frac{1}{9}$ hours

   D. $2\frac{1}{4}$ hours

8. Susan used $9\frac{5}{8}$ kilowatts of electricity to power her house for $5\frac{1}{2}$ hours. On average, how many kilowatts did Susan use per hour?

   A. $\frac{4}{7}$

   B. $1\frac{2}{3}$

   C. $1\frac{3}{4}$

9. Suki typed 245 words in $3\frac{1}{2}$ minutes. What is Suki's typing rate?

   A. 35 words per minute
   B. 70 words per minute
   C. 82 words per minute
   D. 86 words per minute

10. If a snail can move $\frac{3}{10}$ of a meter every $\frac{1}{12}$ hour, what is the speed of the snail, in meters per hour?

   A. $\frac{1}{40}$

   B. $\frac{5}{18}$

   C. $1\frac{1}{2}$

   D. $3\frac{3}{5}$

11. Dante bought 15 pounds of metal for $36. Which purchase would have the same cost per pound as Dante's purchase?

   A. 5 pounds of metal for $12

   B. 6 pounds of metal for $15

   C. 8 pounds of metal for $18

   D. 9 pounds of metal for $21

12. **The aspect ratio, the ratio of the width to the height, of various computer monitors is listed in the table below.**

   Computer Monitor Aspect Ratios

Monitor	Width	Height
A	1152	864
B	800	600
C	1920	1080
D	1600	1200

   Which monitor has an aspect ratio different from the other three?

   A. Monitor A

   B. Monitor B

   C. Monitor C

   D. Monitor D

13. **Sam reads 30 pages of a book in 40 minutes. Which statement identifies a person with the same reading rate as Sam?**

   A.   Francine reads 40 pages in 55 minutes.

   B.   Leroy reads 22.5 pages in 30 minutes.

   C.   Paul reads 150 pages in 3.25 hours.

   D.   Bill reads 60 pages in 2 hours.

14. **Which situation best represents a proportional relationship?**

   A.   A 20 × 24-inch photo is reprinted into a 5 × 6-inch photo.

   B.   A turtle traveled 1 meter in 1 hour and 2 meters in 2.5 hours.

   C.   Two pencils are sold for $1. Ten of the same pencils are sold for $6.

   D.   One apple had 6 seeds, two apples had 8 seeds altogether, and 3 apples had 10 seeds altogether.

15. **Which equation is a true proportion?**

   A. $\dfrac{3}{2} = \dfrac{2}{3}$

   B. $\dfrac{4}{6} = \dfrac{8}{24}$

   C. $\dfrac{7}{14} = \dfrac{21}{28}$

   D. $\dfrac{9}{20} = \dfrac{45}{100}$

16. Which two quantities form a proportional relationship?

   A. $\dfrac{1}{4}$ and $\dfrac{3}{8}$

   B. $\dfrac{2}{15}$ and $\dfrac{3}{30}$

   C. $\dfrac{5}{6}$ and $\dfrac{5}{24}$

   D. $\dfrac{10}{18}$ and $\dfrac{45}{81}$