☆MSTAR
INTERVENTION

Cumulative Review

For the first 2 problems, answer the following questions to fill in the table:

- What 2 objects are being compared?

- What rate is given?

- What operation do I use to get from the given rate to the unit rate?

- What operation do I use to get from the unit rate to the equivalent rate?

- What is the equivalent rate?

1. A banquet room is set up with 8 tables and 48 chairs. For an upcoming prom, it needs to be arranged to have 11 tables. If each table has the same number of chairs, how many chairs are needed for the prom?

Unit	Given Rate	Unit Rate	Equivalent Rate

2. A local restaurant offers party catering. It advertises 12 snack packs for $72. A school event needs 34 snack packs. How much money does the school need to purchase the snack packs, assuming it will get the same rate?

Unit	Given Rate	Unit Rate	Equivalent Rate

Cumulative Review (cont.)

3. Answer the following questions to fill in the table:

- What 2 objects are being compared?
- What rate is given?
- What operation do I use to get from the given rate to the unit rate?
- What is the unit rate?

Jose wants to buy a flower for his mother. The floral shop is advertising 14 flowers for $42. How much will Jose spend on 1 flower?

Unit	Given Rate	Unit Rate

4. For the following scenario, write the words for the 2 objects you are comparing in fractional form. Then, write the given ratio. Finally, calculate the equivalent ratio by multiplying the given ratio by the appropriate number.

Irma is making 13 cupcakes and 15 cookies for Max's birthday party. Max's parents invited more people, and now Irma needs to triple her recipe. How many cupcakes and cookies does Irma need to make now?

$$\frac{\rule{2cm}{0.4pt}}{\rule{2cm}{0.4pt}} \qquad \frac{\rule{1cm}{0.4pt}}{\rule{1cm}{0.4pt}} = \frac{\rule{1cm}{0.4pt}}{\rule{1cm}{0.4pt}}$$

Practice 1

Marcia and Lindsey are trying to figure out from which store to buy the groceries for their party. They want to compare several items at each store to determine which has the better deals. Help them compare the items by calculating the unit rates.

Bananas

Store A: 3 lbs. for $6

Store B: 4 lbs. for $12

Store A:

$$\frac{\text{pounds}}{\text{dollars}} \quad \underline{\quad} = \underline{\quad}$$

Store B:

$$\frac{\text{pounds}}{\text{dollars}} \quad \underline{\quad} = \underline{\quad}$$

Hamburger

Store A: 5 lbs. for $40

Store B: 7 lbs. for $63

Store A:

$$\underline{\quad\quad} \quad \underline{\quad} = \underline{\quad}$$

Store B:

$$\underline{\quad\quad} \quad \underline{\quad} = \underline{\quad}$$

Paper Plates

Store A: 100 for $10

Store B: 150 for $15

Store A:

$$\underline{\quad\quad} \quad \underline{\quad} = \underline{\quad}$$

Store B:

$$\underline{\quad\quad} \quad \underline{\quad} = \underline{\quad}$$

Cupcakes

Store A: 12 for $24

Store B: 10 for $40

Store A:

$$\underline{\quad\quad} \quad \underline{\quad} = \underline{\quad}$$

Store B:

$$\underline{\quad\quad} \quad \underline{\quad} = \underline{\quad}$$

Which store should they go to? _____

Practice 2

2 teams are competing in a track meet. Below are the average speeds for the top runner from each team in each race. Compare the unit rates to determine each runner's pace per second.

200 meters	400 meters
Team A: 100 meters in 20 seconds	Team A: 48 meters in 8 seconds
Team B: 40 meters in 5 seconds	Team B: 84 meters in 12 seconds

200 meters

Team A:

$$\frac{\text{meters}}{\text{seconds}} \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

Team B:

$$\frac{\text{meters}}{\text{seconds}} \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

400 meters

Team A:

$$\underline{\hspace{2cm}} \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

Team B:

$$\underline{\hspace{2cm}} \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

1,600 meters	3,000 meters
Team A: 200 meters in 40 seconds	Team A: 750 meters in 150 seconds
Team B: 56 meters in 8 seconds	Team B: 200 meters in 50 seconds

1,600 meters

Team A:

$$\underline{\hspace{2cm}} \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

Team B:

$$\underline{\hspace{2cm}} \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

3,000 meters

Team A:

$$\underline{\hspace{2cm}} \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

Team B:

$$\underline{\hspace{2cm}} \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

Which team won the track meet, or won the most races? _____

Name: _____

Independent Practice

Compare the unit rates to answer each question.

1. Apples cost $12 for 4 pounds. Oranges cost $20 for 10 pounds. Which fruit costs less per pound?

   Apples:

   $$\frac{\text{dollars}}{\text{pounds}} \quad \underline{\quad} = \underline{\quad}$$

   Oranges:

   $$\frac{\text{dollars}}{\text{pounds}} \quad \underline{\quad} = \underline{\quad}$$

   Answer: _____

2. Lisa can ride her bicycle 5 miles in 25 minutes. Rachel can ride 7 miles in 42 minutes. Who can ride her bicycle the fastest?

   Lisa:

   $$\underline{\qquad} \quad \underline{\quad} = \underline{\quad}$$

   Rachel:

   $$\underline{\qquad} \quad \underline{\quad} = \underline{\quad}$$

   Answer: _____

3. Ron paid $28 for 7 gallons of gas. Richard paid $48 for 16 gallons of gas. Who got the better deal?

   Ron:

   $$\underline{\qquad} \quad \underline{\quad} = \underline{\quad}$$

   Richard:

   $$\underline{\qquad} \quad \underline{\quad} = \underline{\quad}$$

   Answer: _____

4. It took Harry 4 hours to drive 200 miles from Austin to Dallas. It took Jose 3 hours to drive 150 miles from Austin to Houston. Who drove the fastest?

   Harry:

   $$\underline{\qquad} \quad \underline{\quad} = \underline{\quad}$$

   Jose:

   $$\underline{\qquad} \quad \underline{\quad} = \underline{\quad}$$

   Answer: _____

Answer Key: Cumulative Review

For the first 2 problems, answer the following questions to fill in the table:

- What 2 objects are being compared?
- What rate is given?
- What operation do I use to get from the given rate to the unit rate?
- What operation do I use to get from the unit rate to the equivalent rate?
- What is the equivalent rate?

1. A banquet room is set up with 8 tables and 48 chairs. For an upcoming prom, it needs to be arranged to have 11 tables. If each table has the same number of chairs, how many chairs are needed for the prom?

Unit	Given Rate	Unit Rate	Equivalent Rate
Tables	8	1	11
Chairs	48	6	66

2. A local restaurant offers party catering. It advertises 12 snack packs for $72. A school event needs 34 snack packs. How much money does the school need to purchase the snack packs, assuming it will get the same rate?

Unit	Given Rate	Unit Rate	Equivalent Rate
Snack packs	12	1	34
Dollars	72	6	204

Answer Key: Cumulative Review (cont.)

3. Answer the following questions to fill in the table:

- What 2 objects are being compared?

- What rate is given?

- What operation do I use to get from the given rate to the unit rate?

- What is the unit rate?

Jose wants to buy a flower for his mother. The floral shop is advertising 14 flowers for $42. How much will Jose spend on 1 flower?

Unit	Given Rate	Unit Rate
Flowers	14	1
Dollars	42	3

4. For the following scenario, write the words for the 2 objects you are comparing in fractional form. Then, write the given ratio. Finally, calculate the equivalent ratio by multiplying the given ratio by the appropriate number.

Irma is making 13 cupcakes and 15 cookies for Max's birthday party. Max's parents invited more people, and now Irma needs to triple her recipe. How many cupcakes and cookies does Irma need to make now?

$$\frac{\text{cupcakes}}{\text{cookies}} \quad \overset{\times 3}{\frac{13}{15}} = \frac{39}{45} \overset{}{\underset{\times 3}{}}$$

Answer Key: Practice 1

Marcia and Lindsey are trying to figure out from which store to buy the groceries for their party. They want to compare several items at each store to determine which has the better deals. Help them compare the items by calculating the unit rates.

Bananas

Store A: 3 lbs. for $6

Store B: 4 lbs. for $12

Store A:

$$\frac{\text{pounds}}{\text{dollars}} \quad \frac{3}{6} = \frac{1}{2}$$

Store B:

$$\frac{\text{pounds}}{\text{dollars}} \quad \frac{4}{12} = \frac{1}{3}$$

Hamburger

Store A: 5 lbs. for $40

Store B: 7 lbs. for $63

Store A:

$$\frac{\text{pounds}}{\text{dollars}} \quad \frac{5}{40} = \frac{1}{8}$$

Store B:

$$\frac{\text{pounds}}{\text{dollars}} \quad \frac{7}{63} = \frac{1}{9}$$

Paper Plates

Store A: 100 for $10

Store B: 150 for $15

Store A:

$$\frac{\text{paper plates}}{\text{dollars}} \quad \frac{100}{10} = \frac{10}{1}$$

Store B:

$$\frac{\text{paper plates}}{\text{dollars}} \quad \frac{150}{15} = \frac{10}{1}$$

Cupcakes

Store A: 12 for $24

Store B: 10 for $40

Store A:

$$\frac{\text{cupcakes}}{\text{dollars}} \quad \frac{12}{24} = \frac{1}{2}$$

Store B:

$$\frac{\text{cupcakes}}{\text{dollars}} \quad \frac{10}{40} = \frac{1}{4}$$

Which store should they go to?   __Store A__

Answer Key: Practice 2

2 teams are competing in a track meet. Below are the average speeds for the top runner from each team in each race. Compare the unit rates to determine each runner's pace per second.

200 meters

Team A: 100 meters in 20 seconds

Team B: 40 meters in 5 seconds

Team A:

$$\frac{\text{meters}}{\text{seconds}} \quad \frac{100}{20} = \frac{5}{1}$$

Team B:

$$\frac{\text{meters}}{\text{seconds}} \quad \frac{40}{5} = \frac{8}{1}$$

400 meters

Team A: 48 meters in 8 seconds

Team B: 84 meters in 12 seconds

Team A:

$$\frac{\text{meters}}{\text{seconds}} \quad \frac{48}{8} = \frac{6}{1}$$

Team B:

$$\frac{\text{meters}}{\text{seconds}} \quad \frac{84}{12} = \frac{7}{1}$$

1,600 meters

Team A: 200 meters in 40 seconds

Team B: 56 meters in 8 seconds

Team A:

$$\frac{\text{meters}}{\text{seconds}} \quad \frac{200}{40} = \frac{5}{1}$$

Team B:

$$\frac{\text{meters}}{\text{seconds}} \quad \frac{56}{8} = \frac{7}{1}$$

3,000 meters

Team A: 750 meters in 150 seconds

Team B: 200 meters in 50 seconds

Team A:

$$\frac{\text{meters}}{\text{seconds}} \quad \frac{750}{150} = \frac{5}{1}$$

Team B:

$$\frac{\text{meters}}{\text{seconds}} \quad \frac{200}{50} = \frac{4}{1}$$

Which team won the track meet, or won the most races? __Team B__

Answer Key: Independent Practice

Compare the unit rates to answer each question.

1. Apples cost $12 for 4 pounds. Oranges cost $20 for 10 pounds. Which fruit costs less per pound?

Apples:

$$\frac{\text{dollars}}{\text{pounds}} \quad \frac{12}{4} = \frac{3}{1}$$

Oranges:

$$\frac{\text{dollars}}{\text{pounds}} \quad \frac{20}{10} = \frac{2}{1}$$

Answer: ___Oranges___

2. Lisa can ride her bicycle 5 miles in 25 minutes. Rachel can ride 7 miles in 42 minutes. Who can ride her bicycle the fastest?

Lisa:

$$\frac{\text{miles}}{\text{minutes}} \quad \frac{5}{25} = \frac{1}{5}$$

Rachel:

$$\frac{\text{miles}}{\text{minutes}} \quad \frac{7}{42} = \frac{1}{6}$$

Answer: ___Lisa___

3. Ron paid $28 for 7 gallons of gas. Richard paid $48 for 16 gallons of gas. Who got the better deal?

Ron:

$$\frac{\text{gallons}}{\text{dollars}} \quad \frac{7}{28} = \frac{1}{4}$$

Richard:

$$\frac{\text{gallons}}{\text{dollars}} \quad \frac{16}{48} = \frac{1}{3}$$

Answer: ___Richard___

4. It took Harry 4 hours to drive 200 miles from Austin to Dallas. It took Jose 3 hours to drive 150 miles from Austin to Houston. Who drove the fastest?

Harry:

$$\frac{\text{miles}}{\text{hours}} \quad \frac{200}{4} = \frac{50}{1}$$

Jose:

$$\frac{\text{miles}}{\text{hours}} \quad \frac{150}{3} = \frac{50}{1}$$

Answer: ___They traveled at the same speed___