

Reteaching 5-2

Unit Rates and Proportional Reasoning

A **rate** is a ratio that compares two quantities measured in different units.

The cost for 10 copies is \$1.50.

The rate is \$1.50/10 copies (\$1.50 per 10 copies).

A **unit rate** is a rate that has a denominator of 1. You can compare using unit rates.

To find the unit rate for 10 copies:

$$\begin{aligned} \$1.50/10 \text{ copies} &= \frac{\$1.50}{10} \\ &= \frac{\$1.50 \div 10}{10 \div 10} \\ &= \frac{\$0.15}{1} \end{aligned}$$

The unit rate is \$.15 per copy. This is also the *unit price*.

COPY CENTER	
Color Copies	
1 copy	\$0.25
10 copies	\$1.50
25 copies	\$2.50
50 copies	\$4.50
100 copies	\$6.00

For the better buy, compare unit rates.

The unit price for 10 copies is \$.15/copy.

The unit price for 1 copy is \$.25/copy.

Since \$.15 < \$.25, the 10-copy price is the better buy.

Use the Copy Center chart. Find the unit rate.

1. 25 copies

$$\frac{\$2.50}{25} = \frac{\$2.50 \div \boxed{}}{25 \div \boxed{}} =$$

2. 100 copies

$$\frac{\$6.00}{100} = \frac{\$6.00 \div \boxed{}}{100 \div \boxed{}} =$$

3. 50 copies

$$\frac{\$4.50}{50} = \frac{\$4.50 \div \boxed{}}{50 \div \boxed{}} =$$

Write the unit rate for each situation.

4. drive 1,800 mi in 30 h

5. 390 mi on 15 gal of

gasoline _____

6. jog 4,000 m in 12 min

7. \$25.50 for 17 tickets

8. 456 mi on 12 gal of

gasoline _____

9. 54 c of flour for 12

cakes _____

Find each unit price. Then determine the better buy.

10. juice: 18 oz for \$1.26
8 oz for \$.70

11. cloth: 2 yd for \$3.15
6 yd for \$7.78

12. socks: 2 pairs for \$3.50
6 pairs for \$9.00

13. pecans: 1 lb for \$4.80
2 oz for \$1.00
