

Guided Practice**Equivalent Ratios**

Determine if each pair of ratios or rates is equivalent. Explain your reasoning.

1. \$24 saved after 3 weeks; \$52 saved after 7 weeks (Examples 1 and 2)
2. 270 Calories in 3 servings; 450 Calories in 5 servings (Examples 1 and 2)

3. Micah can do 75 push-ups in 3 minutes. Eduardo can do 130 push-ups in 5 minutes. Are these rates equivalent?

Explain. (Example 3)

4. A human adult takes about 16 breaths in 60 seconds. A puppy takes about 8 breaths in 15 seconds. Are these rates equivalent? Explain your reasoning. (Examples 4 and 5)

Independent Practice

Go online for Step-by-Step Solutions

Help

Determine if each pair of ratios or rates is equivalent. Explain your reasoning. (Examples 1–2, 4–5)

1. \$3 for 6 bagels; \$9 for 24 bagels

2. \$12 for 3 paperback books; \$28 for 7 paperback books

3. 3 hours worked for \$12; 9 hours worked for \$36

4. 12 minutes to drive 30 laps; 48 minutes to drive 120 laps

5. Jenny is comparing the cost of two packages of socks. One package has 8 pairs of socks for \$12. Another package has 3 pairs of socks for \$6. Are the rates equivalent? Explain your reasoning.


Equivalent Ratios

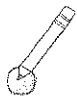
6. Jade enlarged the photograph at the right to a poster. The size of the poster is 60 inches by 100 inches. Is the ratio of the poster's length and width equivalent to the ratio of the photograph's length and width? Explain your reasoning. (Example 3)



3 in.

5 in.

-  **CCSS Justify Conclusions** On a math test, it took Kiera 30 minutes to do 6 problems. Heath finished 18 problems in 40 minutes. Did the students work at the same rate? Explain your reasoning.



Standardized Test Practice

11. The ratio of girls to boys in the junior high band is 3 to 4. Which of these shows possible numbers of the girls and boys in the band?
- (A) 30 girls, 44 boys (C) 22 girls, 28 boys
(B) 27 girls, 36 boys (D) 36 girls, 50 boys

Ratios and Rates

Determine if each pair of ratios or rates is equivalent. Explain your reasoning.

12. 16 points scored in 4 games; 48 points scored in 8 games

Homework Help
 No; $\frac{16 \text{ points}}{4 \text{ games}} = \frac{4 \text{ points}}{1 \text{ game}}$ and $\frac{48 \text{ points}}{8 \text{ games}} = \frac{6 \text{ points}}{1 \text{ game}}$. Since the unit rates are not the same, the rates are not equivalent.

13. 96 words typed in 3 minutes; 160 words typed in 5 minutes

14. 15 computers for 45 students; 45 computers for 135 students