Name: _____ Date: _____

Proportional Reasoning in Real-World Problems - Medium

Find the unit rate. Then write an equation for the relationship.

1. A babysitter earns $70 for 5 hours.
2. A babysitter earns $128 for 8 hours.
3. A car travels 288 miles in 6 hours.
4. A pump moves 24 gallons of water in 3 minutes.
5. A pump moves 54 gallons of water in 6 minutes.
6. A pump moves 75 gallons of water in 5 minutes.

Compare the two proportional relationships. Which has the greater unit rate, and by how much?

7. Store A: pounds: 1, 3, 5; dollars: $2.25, $6.75, $11.25. Store B: pounds: 4, 6, 7; dollars: $8, $12, $14.
8. Babysitter A: e = 15h. Babysitter B: hours: 2, 5, 8; dollars: $24, $60, $96.
9. Store A: pounds: 3, 5, 6; dollars: $6, $10, $12. Store B: $2.50 for 2 pounds.
10. Car A: hours: 3, 5, 6; miles: 144, 240, 288. Car B: d = 64h.

Name: _____ Date: _____

Proportional Reasoning in Real-World Problems - Medium

Compare the two proportional relationships. Which has the greater unit rate, and by how much?

11. Pump A: g = 15m. Pump B: minutes: 3, 5, 8; gallons: 24, 40, 64.

12. Printer A: 60 pages for 2 minutes. Printer B: minutes: 4, 6, 7; pages: 72, 108, 126.

Use the proportional relationship to solve each problem.

13. A recipe uses 3 cups of flour for 2 loaves of bread. How much flour is needed for 6 loaves?

14. 6 pounds of apples cost $9. What do 7 pounds cost?

15. A train travels 150 miles in 3 hours at a constant speed. How far does it travel in 7 hours?

16. 2 gallons of paint covers 700 square feet. How many gallons are needed for 1750 square feet?

17. 1 gallon of paint covers 400 square feet. How many gallons are needed for 2100 square feet?

18. A recipe uses 2 cups of flour for 3 loaves of bread. How much flour is needed for 12 loaves?

19. 2 gallons of paint covers 700 square feet. How many gallons are needed for 2800 square feet?

20. A train travels 240 miles in 4 hours at a constant speed. How far does it travel in 7 hours?

Proportional Reasoning in Real-World Problems - Medium - Answer Key

1. A babysitter earns $70 for 5 hours.
   $14 per hour; e = 14h

2. A babysitter earns $128 for 8 hours.
   $16 per hour; e = 16h

3. A car travels 288 miles in 6 hours.
   48 miles per hour; d = 48h

4. A pump moves 24 gallons of water in 3 minutes.
   8 gallons per minute; g = 8m

5. A pump moves 54 gallons of water in 6 minutes.
   9 gallons per minute; g = 9m

6. A pump moves 75 gallons of water in 5 minutes.
   15 gallons per minute; g = 15m

7. Store A: pounds: 1, 3, 5; dollars: $2.25, $6.75, $11.25. Store B: pounds: 4, 6, 7; dollars: $8, $12, $14.
   Store A, by $0.25 per pound (A: $2.25 per pound; B: $2 per pound)

8. Babysitter A: e = 15h. Babysitter B: hours: 2, 5, 8; dollars: $24, $60, $96.
   Babysitter A, by $3 per hour (A: $15 per hour; B: $12 per hour)

9. Store A: pounds: 3, 5, 6; dollars: $6, $10, $12. Store B: $2.50 for 2 pounds.
   Store A, by $0.75 per pound (A: $2 per pound; B: $1.25 per pound)

10. Car A: hours: 3, 5, 6; miles: 144, 240, 288. Car B: d = 64h.
    Car B, by 16 miles per hour (A: 48 miles per hour; B: 64 miles per hour)

Proportional Reasoning in Real-World Problems - Medium - Answer Key

11. Pump A: g = 15m. Pump B: minutes: 3, 5, 8; gallons: 24, 40, 64.

    Pump A, by 7 gallons per minute (A: 15 gallons per minute; B: 8 gallons per minute)

12. Printer A: 60 pages for 2 minutes. Printer B: minutes: 4, 6, 7; pages: 72, 108, 126.

    Printer A, by 12 pages per minute (A: 30 pages per minute; B: 18 pages per minute)

13. A recipe uses 3 cups of flour for 2 loaves of bread. How much flour is needed for 6 loaves?

    9 cups

14. 6 pounds of apples cost $9. What do 7 pounds cost?

    $10.50

15. A train travels 150 miles in 3 hours at a constant speed. How far does it travel in 7 hours?

    350 miles

16. 2 gallons of paint covers 700 square feet. How many gallons are needed for 1750 square feet?

    5 gallons

17. 1 gallon of paint covers 400 square feet. How many gallons are needed for 2100 square feet?

    5.25 gallons

18. A recipe uses 2 cups of flour for 3 loaves of bread. How much flour is needed for 12 loaves?

    8 cups

19. 2 gallons of paint covers 700 square feet. How many gallons are needed for 2800 square feet?

    8 gallons

20. A train travels 240 miles in 4 hours at a constant speed. How far does it travel in 7 hours?

    420 miles