NAME _____ DATE _____ PERIOD _____

5-3 Practice

Multiplying Rational Numbers

Find each product. Write in simplest form.

1. $\frac{3}{4} \cdot \frac{2}{3}$
2. $\frac{3}{7} \cdot \frac{21}{39}$
3. $-\frac{3}{4} \cdot \frac{10}{27}$
4. $\frac{11}{14} \cdot \frac{7}{33}$
5. $-\frac{18}{24} \cdot \frac{3}{4}$
6. $\frac{9}{10} \cdot \frac{20}{21}$
7. $-50 \cdot \frac{3}{1000}$
8. $\frac{16}{17} \cdot \left(-\frac{5}{8}\right)$
9. $-\frac{1}{2} \cdot \left(-\frac{20}{27}\right)$
10. $-\frac{14}{15} \cdot \left(-\frac{10}{28}\right)$
11. $4\frac{4}{7} \cdot 9\frac{1}{3}$
12. $-2\frac{14}{25} \cdot 4\frac{3}{8}$
13. $4\frac{1}{8} \cdot \left(-1\frac{5}{11}\right)$
14. $-5 \cdot \frac{17}{25}$
15. $2\frac{9}{10} \cdot 1\frac{1}{5}$
16. $\frac{6m}{13} \cdot \frac{2}{mn}$
17. $\frac{p}{3} \cdot \frac{1}{q}$
18. $\frac{2u}{v^2} \cdot \frac{3}{u}$
19. $\frac{4x}{3y} \cdot \frac{9y}{2x}$
20. $\frac{2a}{b} \cdot \frac{c}{2d}$
21. $\frac{rs}{9t} \cdot \frac{3}{s^2}$
22. $2x \cdot \frac{1}{4x^2}$
23. $\frac{x^2}{4y} \cdot \frac{16y^2}{3x}$
24. $\frac{2}{r} \cdot \frac{3}{r}$

25. **WEIGHTS** How many ounces are in $3\frac{3}{4}$ pounds?

26. **FOOTBALL** The total length of 17.6 football fields equals 1 mile. How long is a mile? (*Hint*: length of a football field = 100 yd)

27. **AIRPLANES** The fastest airliner, the Concorde, has the capability of cruising at speeds of up to 1450 mph. While cruising at this top speed, how far would the Concorde travel in $2\frac{1}{2}$ hours?

NAME _____ DATE _____ PERIOD _____

5-4 Practice

Dividing Rational Numbers

Find each quotient. Write in simplest form.

1. $\frac{1}{2} \div \frac{1}{10}$

2. $-\frac{3}{8} \div \frac{9}{24}$

3. $-\frac{15}{16} \div \frac{7}{12}$

4. $\frac{17}{20} \div \left(-\frac{3}{10}\right)$

5. $-\frac{3}{8} \div \left(-\frac{3}{9}\right)$

6. $\frac{25}{32} \div \frac{15}{56}$

7. $0 \div \frac{17}{18}$

8. $-1\frac{1}{2} \div \frac{1}{4}$

9. $\frac{8}{9} \div \frac{22}{81}$

10. $8\frac{4}{9} \div 2\frac{1}{9}$

11. $4\frac{3}{5} \div \frac{2}{5}$

12. $-\frac{100}{63} \div \frac{10}{81}$

13. $18\frac{1}{3} \div \left(-4\frac{1}{6}\right)$

14. $-3\frac{2}{9} \div \frac{4}{27}$

15. $-2\frac{5}{6} \div \frac{3}{51}$

16. $4\frac{11}{12} \div 4\frac{5}{6}$

17. $\frac{2x}{3} \div \frac{1}{9}$

18. $\frac{a}{4} \div \frac{a}{8}$

19. $\frac{4k}{5} \div \frac{25}{2k}$

20. $\frac{ab}{8} \div \frac{b}{a}$

21. $\frac{2c}{b} \div \frac{4a}{b}$

22. $\frac{y}{x} \div y^2$

23. $\frac{3st}{r} \div \frac{4t}{r}$

24. $\frac{a^2}{b^2} \div \frac{c^2}{b^2}$

25. $-\frac{2x}{y} \div \frac{4}{y}$

26. $\frac{m^2}{2np} \div \frac{n}{4p}$

27. Evaluate $x \div y$ if $x = 3\frac{1}{2}$ and $y = \frac{3}{4}$.

28. Evaluate $w \div z$ if $w = \frac{6}{7}$ and $z = 3$.

29. **TRAVEL** What is the average speed that Robin must drive to reach her friend's house 170 miles away in $2\frac{1}{2}$ hours?

30. **SEWING** How many choir robes can be made from $20\frac{1}{4}$ yards of fabric if each robe needs $1\frac{1}{8}$ yards?