

Practice Worksheet 3-3

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. $-2\frac{14}{25} \cdot \frac{3}{8}$

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. $\frac{2}{r} \cdot \frac{3}{r}$

Evaluate each expression if $a = -\frac{5}{6}$, $b = -3\frac{3}{8}$, and $c = \frac{7}{10}$. Write the product in simplest form.

25. bc

26. ac

27. $4\frac{2}{5}c$

28. $-2abc$

29. $-3\frac{3}{7}ab$

30. $2\frac{1}{9}abc$

31. The fastest retired airliner, the Concorde, had 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?