

Write the answer in **simplest form**.

1. $\frac{3}{2} \times \frac{5}{2} = 3\frac{3}{4}$
 $\frac{15}{4} \rightarrow 4 \overline{)15} \begin{array}{r} 3 \\ 12 \\ \hline 3 \end{array}$ — remainder

2. Which property of multiplication is used?

$\frac{1}{2} \times (2 \times 5\frac{3}{4}) = (\frac{1}{2} \times 2) \times 5\frac{3}{4}$

Associative Property

3. Shawnee is making curtains for

3 — 3 windows in her room. Each window needs 3 $\frac{3}{4}$ feet of material. About how much material will she need for all 3 windows?

12 feet

4. $\frac{1}{2} \times 1\frac{1}{2} = \frac{3}{4}$

$\frac{1}{2} \times \frac{(2 \times 1) + 1}{2} \rightarrow \frac{1}{2} \times \frac{3}{2} = \frac{3}{4}$

5. How many thirds are there in 6?

18

1	2	3
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10	11	12
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4	5	6
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13	14	15
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7	8	9
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16	17	18
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6. $4\frac{1}{3} \div 1\frac{1}{2} = 2\frac{8}{9}$

$\frac{(3 \times 4) + 1}{3} \div \frac{(2 \times 1) + 1}{2} = \frac{13}{3} \div \frac{3}{2} \rightarrow \frac{13}{3} \times \frac{2}{3} = \frac{26}{9}$

7. Which property of multiplication is used?

$\frac{1}{2} \times (6 + \frac{4}{7}) = (\frac{1}{2} \times 6) + (\frac{1}{2} \times \frac{4}{7})$

Distributive Property

8. A cookie recipe calls for 1 $\frac{3}{4}$ cups of flour. About how much flour is needed for 3 recipes?

$2 \times 3 = \underline{6}$ cups

9. What is $\frac{2}{3}$ of 300?

200

$\frac{2}{3} \times \frac{300}{1} = \frac{600}{3} = 3 \overline{)600}$

$\frac{2}{3} \times \frac{300}{1} \rightarrow \frac{2}{1} \times 100 = 300$

10. $\frac{8}{15} \div 1\frac{1}{3} = \underline{\frac{2}{5}}$

11. Estimate.

$24 \left(23 \frac{8}{11} \right) \times \frac{2}{3}$

16

compatible numbers are based on multiplication factors

$3 \times 7 = 21$ $24 \div 3 = 8$
 $3 \times 8 = 24$ $24 \times \frac{2}{3}$
 $3 \div 3 = 1$
 $8 \times \frac{2}{1} = 16$

GO ON

12. Which property of multiplication states that the order of the factors does not change the product?

Commutative Property

13. $1\frac{1}{5} \times 6\frac{2}{3} = 8$ ~~$\frac{6}{5} \times \frac{20}{3}$~~ $\rightarrow \frac{2}{1} \times \frac{4}{1}$
 $\frac{(5 \times 1) + 1}{5} \times \frac{(3 \times 6) + 2}{3} = \frac{6}{5} \times \frac{20}{3} = \frac{120}{15}$

14. Rodney rides his bike $5\frac{7}{8}$ miles every day. About how far does he ride each week? 7 days per week
 $6 \times 7 = 42$ miles

15. What is the reciprocal of $3\frac{2}{3}$?

$\frac{3}{11}$ $\frac{(3 \times 3) + 2}{3} = \frac{11}{3} \rightarrow \frac{3}{11}$

16. Write the value of n that will make a true statement that shows the Identity Property of Multiplication.

$\frac{2}{3} \times \frac{n}{7} = \frac{2}{3}$

$n = 7$

Solve.

17. Dawn has 6 hours this weekend to spend on her homework. If she spends $\frac{3}{8}$ of this time on math, how many hours will she spend on her math homework?

$6 \times \frac{3}{8} = \frac{18}{8}$
 $2\frac{1}{4}$ hrs
 OR 2 hrs 15 min
 $8 \overline{)18} \begin{array}{r} 2 \\ 16 \\ \hline 2 \end{array} \rightarrow 2\frac{1}{4}$

18. Tony spent $\frac{1}{2}$ of his allowance on video rentals. He also spent \$2.50 on a magazine and the remaining \$5.75 at the bowling alley. How much was his allowance?

half 1 + 2.50 magazine
 5.75 bowling
\$ 16.50
 $\begin{array}{r} 8.25 \\ + 8.25 \\ \hline 16.50 \end{array}$
 $\begin{array}{r} \$ 8.25 \\ \text{half } 2 \end{array}$

19. Mike is buying 10 boards that are each $6\frac{1}{2}$ feet long. The boards cost \$1.38 per foot. To find his total cost, which operation should be used?

multiplication

20. May has 25 inches of ribbon to make bookmarks. Each bookmark requires $2\frac{7}{9}$ inches to make. How many bookmarks can she make?

9 book marks
 $25 \div 2\frac{7}{9} \rightarrow 25 \div \frac{(9 \times 2) + 7}{9}$
 $25 \div \frac{25}{9}$
 $25 \times \frac{9}{25} \rightarrow 1 \times \frac{9}{1}$
 $\begin{array}{r} + \\ \hline 20 \end{array}$ STOP