Estimating Multiplication of Fractions

Determine the answer using estimation.

When multiplying a fraction and a whole number you can estimate the answer by remembering that the fraction is just part of a number.

\[
5 \times 6 \frac{2}{3} =
\]

In the example above, \(6 \frac{2}{3}\) is larger than 6 but less than 7. So we know the answer is going to be between \(5 \times 6\) and \(5 \times 7\).

\[
5 \times 6 \frac{2}{3} = 33 \frac{1}{3}
\]
The actual answer is \(33 \frac{1}{3}\) which is between \(5 \times 6\) (30) and \(5 \times 7\) (35).

1) \(4 \frac{3}{7} \times 3 =
\]
A. \(18 \frac{2}{7}\) B. \(11 \frac{2}{7}\) C. \(13 \frac{2}{7}\) D. \(9 \frac{2}{7}\)

2) \(8 \frac{2}{3} \times 4 =
\]
A. \(39 \frac{2}{3}\) B. \(30 \frac{2}{3}\) C. \(38 \frac{2}{3}\) D. \(34 \frac{2}{3}\)

3) \(8 \times 3 \frac{7}{8} =
\]
A. \(35 \frac{7}{8}\) B. 31 C. 33 D. 40

4) \(3 \times 2 \frac{2}{5} =
\]
A. \(7 \frac{1}{5}\) B. \(3 \frac{1}{5}\) C. \(11 \frac{1}{5}\) D. \(4 \frac{1}{5}\)

5) \(5 \frac{5}{7} \times 5 =
\]
A. \(28 \frac{4}{7}\) B. \(23 \frac{3}{7}\) C. \(35 \frac{4}{7}\) D. \(22 \frac{5}{7}\)

6) \(7 \times 5 \frac{3}{10} =
\]
A. \(43 \frac{4}{10}\) B. \(34 \frac{4}{10}\) C. \(33 \frac{8}{10}\) D. \(37 \frac{8}{10}\)

7) \(2 \frac{9}{10} \times 5 =
\]
A. \(7 \frac{9}{10}\) B. \(14 \frac{5}{10}\) C. \(5 \frac{5}{10}\) D. \(18 \frac{9}{10}\)

8) \(5 \frac{3}{5} \times 9 =
\]
A. \(44 \frac{2}{5}\) B. \(36 \frac{2}{5}\) C. \(50 \frac{2}{5}\) D. \(55 \frac{2}{5}\)

9) \(9 \times 4 \frac{4}{5} =
\]
A. \(35 \frac{1}{5}\) B. \(48 \frac{1}{5}\) C. \(43 \frac{1}{5}\) D. \(46 \frac{1}{5}\)

10) \(9 \times 8 \frac{4}{5} =
\]
A. \(90 \frac{1}{5}\) B. \(82 \frac{4}{5}\) C. \(79 \frac{1}{5}\) D. \(69 \frac{1}{5}\)

11) \(3 \frac{2}{9} \times 9 =
\]
A. 25 B. 45 C. 39 D. 29

12) \(2 \frac{3}{5} \times 5 =
\]
A. 16 B. 9 C. 13 D. \(18 \frac{3}{5}\)
Estimating Multiplication of Fractions

Name: Answer Key

When multiplying a fraction and a whole number you can estimate the answer by remembering that the fraction is just part of a number.

5 × 6 \(\frac{2}{3}\) = 33 \(\frac{1}{3}\)

The actual answer is 33 \(\frac{1}{3}\) which is between 5 × 6 (30) and 5 × 7 (35).

In the example above, 6 \(\frac{2}{3}\) is larger than 6 but less than 7.
So we know the answer is going to be between 5 × 6 and 5 × 7.

1) 4 \(\frac{3}{4}\) × 3 = A. 18 \(\frac{2}{7}\) B. 11 \(\frac{2}{7}\) C. 13 \(\frac{2}{7}\) D. 9 \(\frac{2}{7}\)

2) 8 \(\frac{2}{3}\) × 4 = A. 39 \(\frac{2}{3}\) B. 30 \(\frac{2}{3}\) C. 38 \(\frac{2}{3}\) D. 34 \(\frac{2}{3}\)

3) 8 × 3 \(\frac{7}{8}\) = A. 35 \(\frac{7}{8}\) B. 31 C. 33 D. 40

4) 3 × 2 \(\frac{2}{5}\) = A. 7 \(\frac{1}{5}\) B. 3 \(\frac{1}{5}\) C. 11 \(\frac{1}{5}\) D. 4 \(\frac{1}{5}\)

5) 5 \(\frac{5}{7}\) × 5 = A. 28 \(\frac{4}{7}\) B. 23 \(\frac{3}{7}\) C. 35 \(\frac{4}{7}\) D. 22 \(\frac{5}{7}\)

6) 7 × 5 \(\frac{4}{10}\) = A. 43 \(\frac{4}{10}\) B. 34 \(\frac{4}{10}\) C. 33 \(\frac{8}{10}\) D. 37 \(\frac{8}{10}\)

7) 2 \(\frac{9}{10}\) × 5 = A. 7 \(\frac{9}{10}\) B. 14 \(\frac{5}{10}\) C. 5 \(\frac{5}{10}\) D. 18 \(\frac{9}{10}\)

8) 5 \(\frac{3}{5}\) × 9 = A. 44 \(\frac{2}{5}\) B. 36 \(\frac{2}{5}\) C. 50 \(\frac{2}{5}\) D. 55 \(\frac{2}{5}\)

9) 9 × 4 \(\frac{4}{5}\) = A. 35 \(\frac{1}{5}\) B. 48 \(\frac{1}{5}\) C. 43 \(\frac{1}{5}\) D. 46 \(\frac{1}{5}\)

10) 9 × 8 \(\frac{4}{5}\) = A. 90 \(\frac{1}{5}\) B. 82 \(\frac{4}{5}\) C. 79 \(\frac{1}{5}\) D. 69 \(\frac{1}{5}\)

11) 3 \(\frac{2}{9}\) × 9 = A. 25 B. 45 C. 39 D. 29

12) 2 \(\frac{3}{5}\) × 5 = A. 16 B. 9 C. 13 D. 18 \(\frac{3}{5}\)