



Estimating Multiplication of Fractions

Name: _____

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 5×6 and 5×7 .

$$5 \times 6 \frac{2}{3} = 33 \frac{1}{3}$$

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

Answers

1) $5 \times 7 \frac{1}{9} =$ A. $35 \frac{5}{9}$ B. $42 \frac{1}{9}$ C. $43 \frac{5}{9}$ D. $31 \frac{5}{9}$

1. _____

2) $7 \frac{4}{9} \times 7 =$ A. $42 \frac{1}{9}$ B. $45 \frac{4}{9}$ C. $45 \frac{1}{9}$ D. $52 \frac{1}{9}$

2. _____

3) $3 \frac{1}{7} \times 4 =$ A. $10 \frac{1}{7}$ B. $19 \frac{1}{7}$ C. $12 \frac{4}{7}$ D. $8 \frac{1}{7}$

3. _____

4) $6 \frac{2}{3} \times 5 =$ A. $27 \frac{2}{3}$ B. $33 \frac{1}{3}$ C. $28 \frac{2}{3}$ D. $26 \frac{2}{3}$

4. _____

5) $5 \times 5 \frac{7}{9} =$ A. $22 \frac{8}{9}$ B. $32 \frac{8}{9}$ C. $28 \frac{8}{9}$ D. $23 \frac{8}{9}$

5. _____

6) $2 \frac{2}{3} \times 2 =$ A. $5 \frac{1}{3}$ B. $0 \frac{1}{3}$ C. $0 \frac{2}{3}$ D. $8 \frac{1}{3}$

6. _____

7) $5 \times 4 \frac{5}{6} =$ A. $24 \frac{1}{6}$ B. $17 \frac{1}{6}$ C. $17 \frac{5}{6}$ D. $28 \frac{5}{6}$

7. _____

8) $2 \times 6 \frac{7}{9} =$ A. $17 \frac{5}{9}$ B. $17 \frac{7}{9}$ C. $18 \frac{7}{9}$ D. $13 \frac{5}{9}$

8. _____

9) $9 \frac{4}{6} \times 2 =$ A. $23 \frac{2}{6}$ B. $15 \frac{4}{6}$ C. $16 \frac{2}{6}$ D. $19 \frac{2}{6}$

9. _____

10) $2 \frac{6}{8} \times 8 =$ A. 26 B. $28 \frac{6}{8}$ C. 22 D. 12

10. _____

11. _____

12. _____



Estimating Multiplication of Fractions

Name: **Answer Key**

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

- | | | | | | | |
|-----|----------------------------|---------------------|---------------------|---------------------|---------------------|--------------|
| 1) | $5 \times 7 \frac{1}{9} =$ | A. $35 \frac{5}{9}$ | B. $42 \frac{1}{9}$ | C. $43 \frac{5}{9}$ | D. $31 \frac{5}{9}$ | 1. A |
| 2) | $7 \frac{4}{9} \times 7 =$ | A. $42 \frac{1}{9}$ | B. $45 \frac{4}{9}$ | C. $45 \frac{1}{9}$ | D. $52 \frac{1}{9}$ | 2. D |
| 3) | $3 \frac{1}{7} \times 4 =$ | A. $10 \frac{1}{7}$ | B. $19 \frac{1}{7}$ | C. $12 \frac{4}{7}$ | D. $8 \frac{1}{7}$ | 3. C |
| 4) | $6 \frac{2}{3} \times 5 =$ | A. $27 \frac{2}{3}$ | B. $33 \frac{1}{3}$ | C. $28 \frac{2}{3}$ | D. $26 \frac{2}{3}$ | 4. B |
| 5) | $5 \times 5 \frac{7}{9} =$ | A. $22 \frac{8}{9}$ | B. $32 \frac{8}{9}$ | C. $28 \frac{8}{9}$ | D. $23 \frac{8}{9}$ | 5. C |
| 6) | $2 \frac{2}{3} \times 2 =$ | A. $5 \frac{1}{3}$ | B. $0 \frac{1}{3}$ | C. $0 \frac{2}{3}$ | D. $8 \frac{1}{3}$ | 6. A |
| 7) | $5 \times 4 \frac{5}{6} =$ | A. $24 \frac{1}{6}$ | B. $17 \frac{1}{6}$ | C. $17 \frac{5}{6}$ | D. $28 \frac{5}{6}$ | 7. D |
| 8) | $2 \times 6 \frac{7}{9} =$ | A. $17 \frac{5}{9}$ | B. $17 \frac{7}{9}$ | C. $18 \frac{7}{9}$ | D. $13 \frac{5}{9}$ | 8. D |
| 9) | $9 \frac{4}{6} \times 2 =$ | A. $23 \frac{2}{6}$ | B. $15 \frac{4}{6}$ | C. $16 \frac{2}{6}$ | D. $19 \frac{2}{6}$ | 9. A |
| 10) | $2 \frac{6}{8} \times 8 =$ | A. 26 | B. $28 \frac{6}{8}$ | C. 22 | D. 12 | 10. C |

Answers

- | | |
|-----|----------|
| 1. | A |
| 2. | D |
| 3. | C |
| 4. | B |
| 5. | C |
| 6. | A |
| 7. | A |
| 8. | D |
| 9. | D |
| 10. | C |
| 11. | A |
| 12. | D |