

Estimate Products of Whole Numbers and Decimals



To estimate a product, round each number. Then use a basic fact and a multiplication pattern to multiply mentally.

Estimate 27×643 .

Round each number to its greatest place.

$$\begin{array}{c} 27 \\ \downarrow \end{array} \times \begin{array}{c} 643 \\ \downarrow \end{array}$$

Write the basic fact. Then, write the same number of zeros in the product as are in both factors.

$$\begin{array}{c} 30 \\ \uparrow \\ 1 \text{ zero} \end{array} \times \begin{array}{c} 600 \\ \uparrow \\ 2 \text{ zeros} \end{array} = 18,000 \begin{array}{c} \uparrow \\ 3 \text{ zeros} \end{array}$$

Estimate 54.3×7.6 .

$$\begin{array}{c} 54.3 \\ \downarrow \end{array} \times \begin{array}{c} 7.6 \\ \downarrow \end{array}$$

$$\begin{array}{c} 50 \\ \uparrow \\ 1 \text{ zero} \end{array} \times \begin{array}{c} 8 \\ \uparrow \\ 1 \text{ zero} \end{array} = 400$$

Estimate each product. Round each factor. Then multiply.

1. $\begin{array}{c} 54 \\ \downarrow \end{array} \times \begin{array}{c} 68 \\ \downarrow \end{array}$
 _____ \times _____ = _____

2. $\begin{array}{c} 61 \\ \downarrow \end{array} \times \begin{array}{c} 239 \\ \downarrow \end{array}$
 _____ \times _____ = _____

3. $\begin{array}{c} 6.97 \\ \downarrow \end{array} \times \begin{array}{c} 4.3 \\ \downarrow \end{array}$
 _____ \times _____ = _____

4. $\begin{array}{c} 36.4 \\ \downarrow \end{array} \times \begin{array}{c} 2.8 \\ \downarrow \end{array}$
 _____ \times _____ = _____

Estimate the product by rounding. Show how you rounded.

5. 8×674

6. 9×45.8

7. 43×104

8. 1.9×74

9. 84×13

10. 21×663

11. 38×573

12. 18×26.4

13. 1.84×4.8

14. 2.6×9.04
