



6-2 Estimating Products and Quotients

(Pages 280–283)

It is important to estimate products and quotients when using a calculator. You can make mistakes when entering numbers, and estimation will tell you if your result is reasonable. You can use rounding and **compatible numbers** to estimate products and quotients of rational numbers. Compatible numbers are rounded so it is easy to compute with them mentally.

EXAMPLES

Use rounding or compatible numbers to estimate.

A $49.68 \div 4.41$

Round 49.68 to 50. Even though 4.41 rounds to 4, 5 is a compatible number because 50 is divisible by 5.
 $49.68 \div 4.41 \rightarrow 50 \div 5$ or 10

B $20 \times \frac{5}{9}$

Replace $\frac{5}{9}$ with $\frac{1}{2}$ because $\frac{5}{9}$ is close to $\frac{5}{10}$ and $\frac{5}{10} = \frac{1}{2}$.

$20 \times \frac{5}{9} \rightarrow 20 \times \frac{1}{2}$ or 10

Try These Together

Estimate each product or quotient.

1. $9.7 \cdot 4.8$

2. $5 \div \frac{7}{16}$

3. $29.3 \div 1.8$

PRACTICE

Estimate each product or quotient

4. $17.7 \cdot 5.9$

5. $8.1 \div 3.9$

6. $10.8 \cdot 2.75$

7. $9.7 \div 4.8$

8. $14.9 \div 2.8$

9. $19.9 \div 3.7$

10. $\frac{2}{5} \cdot 1.8$

11. $\frac{11}{20} \cdot 3.1$

12. $25 \cdot 2.9$

13. $9 \div 2\frac{11}{12}$

14. $\frac{87}{44} \cdot 1.96$

15. $25 \div 4.9$

16. Estimate $\frac{14}{15}$ times 3.

17. Estimate the quotient of 35.8 and 3.8.

18. Estimate $\frac{21}{10}$ times 4.

19. Estimate the quotient of 4.7 and $\frac{19}{20}$.

20. Personal Finance Roger bought a car from his father for \$5100 and agreed to pay for it in 36 equal monthly payments. About how much will he have paid after 7 months?



21. Standardized Test Practice Estimate the product $\frac{4}{5} \cdot 2.9$.

A 15

B 5

C 3

D 1

Answers: Estimates may vary. 1. 50 2. 10 3. 15 4. 108 5. 2 6. 30 7. 2 8. 5 9. 5 10. 0.8 11. 1.5 12. 75 13. 3 14. 4 15. 5 16. 3 17. 9 18. 8 19. 5 20. about \$1000 21. C