

SKILL

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Skills Readiness***Rounding and Estimation***

Rounding a number provides an approximate value of the number. Estimation is often used when the final result does not need to be an exact number.

To round a number:

Step 1: Find the place to which you are rounding.

Step 2: Look at the digit immediately to the right of that place.

Step 3: If this digit is greater than or equal to 5, round the digit in the rounding place up 1. If the digit is less than 5, the digit in the rounding place is unchanged.

Step 4: If you are rounding to a decimal place or to the nearest whole number, drop the digits to the right of the rounding place. If you are rounding to tens, hundreds, or any larger place value, fill in zeros as needed.

Example: Round 14.638 to the nearest tenth.

Step 1: The digit to be rounded is 6.

Step 2: 3 is to the right of 6.

Step 3: $3 < 5$, so 6 is unchanged.

Step 4: Drop the digits 3 and 8.

Answer: 14.6

Practice on Your Own

Round each number to the indicated place value.

1. 146.3892; hundredth

2. 235.7; whole number

3. 47; tens

4. 15.275; tenth

5. 0.0048; thousandth

6. 3.99; tenth

Estimate the sum or product by rounding each number to the indicated place value.

7. $76 + 148$; tens

8. 9.46×18 ; tens

9. $10.2 \div 1.975$; ones

10. $412 + 709 + 99$; hundreds

11. 6.62×1.89 ; tens

12. $780.5 \div 7.88$; tens

Check

Estimate each number by rounding it to the indicated place value.

13. 0.0748; hundredth

14. 1324.8; whole number

15. 18.996; tenth

Estimate the sum or product by rounding each number to the indicated place value.

16. 11.8×47 ; tens

17. $862 + 59.4$; hundreds

18. $9.2 \div 2.866$; ones