Name _____

Evaluating Expressions

Brackets and parentheses are both used to show groupings.
Brackets are used to avoid double parentheses: [(instead of ((.

Evaluate expressions according to the order of operations.

1.	Evaluate inside parentheses, then evaluate inside brackets.	$2.3^2 + [(9 \times 0.4) + (3 \times 0.8)] \times 1.2$ $2.3^2 + [3.6 + 2.4] \times 1.2$ $2.3^2 + 6 \times 1.2$
2.	Evaluate terms with exponents.	$2.3^2 + 6 \times 1.2$ $5.29 + 6 \times 1.2$
3.	Multiply and divide from left to right.	$5.29 + 6 \times 1.2$ $5.29 + 7.2$
4.	Add and subtract from left to right.	$5.29 + 7.2$ 12.49

Evaluate each expression.

1. $(4.8 \div 2) \times 5$

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2. $3.6 + (3 \times 9.6 - 4.8)$

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3. $[(6.2 \times 8.4) - 9.28]$

_____

4. $[7 \times (9.6 \div 3)] + 12.4$

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5. $6 \times [(6 \times 2.3) + 3.9]$

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6. $2^4 \div [(3.35 \times 0.8) + 5.32]$

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7. $9.6 + [(3.1 \times 2) - 2.3] + 4^2$

_____

8. $6^2 - 9 \div [(0.24 \times 5) + (0.66 \times 5)]$

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9. How would you use estimation to evaluate this expression:
$10.2 \times [(2 \times 3.7) + 8]$?

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Evaluating Expressions

1. $5^2 - (3.1 \times 6 + 5.3)$

2. $4^2 - [(4.2 \times 3.5) - 9.5]$

3. $3^2 - [(12 - 2^2) \times 0.6]$

4. $[(0.2 \times 8) + (2.5 \times 3)] + 5^2$

5. $42 \div [8.6 - (8 \times 0.2)]$

6. $3^3 + 4.2 \times 8 \div 0.2$

7. $6.8 + [(0.5 \times 7) + (3.1 \times 3)]$

8. $5^2 - [(6^2 - 32.4) + (8 \div 0.5)] + 4.5$

9. $9 + [(4.2 - 3.3) + (6.4 \div 0.8)] \times 3$

10. $41 - 3^2 + (8 \times 2.3) - 15 + (2.1 \times 4)$

11. Keisha bought a new pair of skis for $450. She put $120 down and got a student discount of $45. Her mother gave her $\frac{1}{2}$ of the balance for her birthday. Which of these expressions could be used to find the amount Keisha still owes on the skis?

A $450 - 120 + 45 \div 2$

C $450 - (120 - 45) \div 2$

B $[450 - (120 - 45) \div 2]$

D $[450 - (120 + 45)] \div 2$

12. $(7 \times 3.4) - [(2.8 \times 5) - (4.3 \times 2)] + 4^2$. Give the order of operations a student solving this problem would use to evaluate the expression. Solve.