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Name/Grade

Hobby/Work

Interesting Fact about yourself

Do you like Math?

On your mini white board, show me an algebraic expression that means:

Multiply *n* by 4 and then add 3 to your answer

$4n+3$

$4 \cdot n+3$ ✓

On your mini white board, show me an algebraic expression that means:

Multiply *n* by 4 and then add 3 to your answer 4n+3

Add 3 to n and then multiply your answer by 4

$4(3+n)$ $(3+n)4$

$4(n+3)$

4 times the sum of a number and 3

$4(n+3)$

On your mini white board, show me an algebraic expression that means:

Multiply *n* by 4 and then add 3 to your answer $4n+3$

Add 3 to n and then multiply your answer by 4 $4(3+n)$

Add 5 to *n* and then divide your answer by 3

On your mini white board, show me an algebraic expression that means:

Multiply *n* by 4 and then add 3 to your answer $4n+3$

Add 3 to n and then multiply your answer by 4 $4(3+n)$

Add 5 to *n* and then divide your answer by 3 $\frac{n+5}{3}$

Multiply *n* by *n* and then multiply your answer by 5

$n \cdot n \cdot 5$

$n^2 \cdot 5 = 5 \cdot n^2$

$5n^2$

Multiply *n* by 5 and then square your answer

$(5n)^2$

$\boxed{25n^2}$

Mallory

$(5n)^2$

$5^2 n^2$

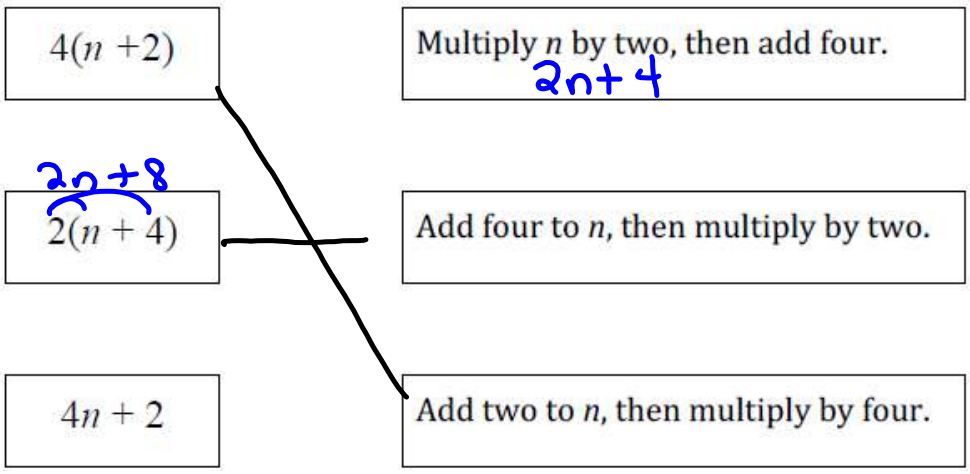
$25n^2$

Random ex.

$\sqrt{3}$ square root

3^2 squared

Matching Expressions and Words



Interpreting Expressions

1. Write algebraic expressions for each of the following:

a. Multiply n by 5 then add 4. $n(5)+4 = 5n+4$

b. Add 4 to n then multiply by 5. $5(4+n)$

c. Add 4 to n then divide by 5. $\frac{n+4}{5}$

d. Multiply n by n then multiply by 3. $n \cdot n \cdot 3 = 3n^2$

e. Multiply n by 3 then square the result. $(3n)^2 = 9n^2$

Simplify

1. $3(n+5)$

$3n+15$

2. $\frac{12n-3}{3}$

$\frac{12n}{3} - \frac{3}{3}$

$4n-1$

3. $(7n)^2$

$49n^2$

$7^2 \cdot n^2$

4. $(n+5)^2$

$(n+5)(n+5)$

$n^2+5n+5n+25$

$n^2+10n+25$

$3^2 = 3 \cdot 3$

$8^2 = 8 \cdot 8$

$n^2 = n \cdot n$

$(3n)^2 = 3n \cdot 3n$

2. The equations below were created by students who were asked to write equivalent expressions on either side of the equals sign.

   Imagine you are a teacher. Your job is to decide whether their work is right or wrong. If you see an equation that is false, then:

   a. Cross out the expression on the right and replace it with an expression that is equivalent to the one on the left.

   b. Explain what is wrong, using words or diagrams.

$$2(n + 3) = 2n + 3$$

$$\frac{10n - 5}{5} = 2n - 1$$

$$(5n)^2 = 5n^2$$

$$(n + 3)^2 = n^2 + 3^2 = n^2 + 9$$