Answers and talk notes

Identify Equivalent Algebraic Expressions

What your student is learning

Tonight we learn when two expressions are equivalent. Equivalent means they always give the same answer, even when they look different.

Answers

Ask your student to explain before you look.

1. **B.** 4x and 2x. 4x and 2x are like terms, because both have the variable x.
2. **D.** 8y. 6y + 2y = 8y. Add the numbers in front of the y and keep the y.
3. **A.** 7a + 3. 5a + 3 + 2a = 7a + 3. Combine 5a and 2a, and keep the 3.
4. **C.** 5n. 4n + n = 5n, because n means 1n and 4 + 1 = 5.
5. **B.** 10. 2x + 4 = 2 × 3 + 4 = 6 + 4 = 10 when x = 3.

Talk about it

Do the two columns give the same value in every row? What do the like terms 4x and 2x combine to?

Home mission

Say a number of party guests, like 3. Ask your student to work out Dee's cost and Eli's cost out loud. Do they match? Try one more number.

When they are stuck, ask

- Which terms have the same letter? Those are the ones we can combine.
- Let's put the same number in for the letter in both and see if they match.
- When we combine like terms, we add the numbers in front and keep the letter.

Try not to say

- 2x + 3 can combine into 5x.
- If they match for one number, they are always equivalent.
- When you add 3x + 2x you get $5x^2$ (change the little number).