SHSAT Daily Mistake #9

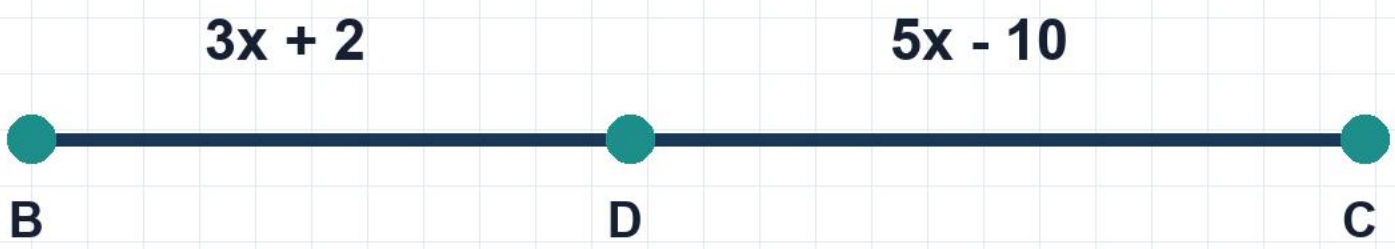
The Geometry Diagram Assumption Trap

Rising Grade 8 geometry mini-lesson

Parent note

Give this as a 6-minute check. The goal is to see whether the student uses the given information instead of trusting how the diagram looks.

Question



Do not assume these are equal.

Point D lies on segment BC. The diagram makes BD and DC look similar in length. BD is 3x + 2 and DC is 5x - 10. No other information is given. Which expression represents BC?

A. 8x - 8

B. 2x - 12

C. 3x + 2 = 5x - 10

D. x = 6

Answer and explanation

Correct answer: A

BC is the whole segment. Add the two parts: BC = BD + DC = (3x + 2) + (5x - 10) = 8x - 8.

Common wrong move: setting 3x + 2 equal to 5x - 10 because the drawing makes the two pieces look similar. The problem never says D is the midpoint and gives no equal-length marks.

Next step

Mark it as a diagram-assumption miss. Use the 8-mistake checklist before the next practice set.

originalpracticelab.com/shsat-geometry-diagram-assumption-trap