

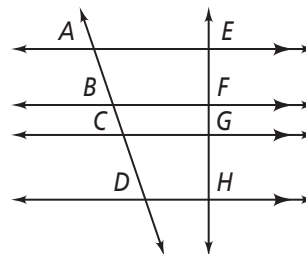
7-5 Standardized Test Prep

Proportions in Triangles

Multiple Choice

For Exercises 1-5, choose the correct letter.

For Exercises 1 and 2, use the diagram at the right.



1. Which makes the proportion true? $\frac{AB}{\square} = \frac{EF}{GH}$

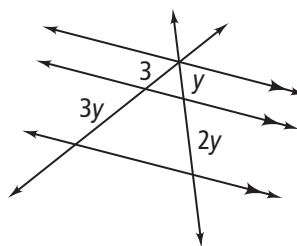
- (A) AD (C) CD
 (B) DH (D) BC

2. Which proportion is *not* true?

- (F) $\frac{BC}{CD} = \frac{FG}{GH}$ (G) $\frac{AC}{CD} = \frac{EG}{GH}$ (H) $\frac{BD}{FH} = \frac{AD}{EH}$ (I) $\frac{AB}{AE} = \frac{EF}{BF}$

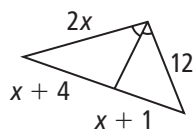
3. What is the value of y ?

- (A) 2 (C) 3
 (B) 4 (D) 6



4. What is the value of x ?

- (F) 3 (H) 6
 (G) 8 (I) 12



5. In $\triangle DEF$, the bisector of $\angle F$ divides the opposite sides into segments that are 4 and 9 in. long. The side of the triangle adjacent to the 4 in. segment is 6 in. long. To the nearest tenth of an inch, how long is the third side of the triangle?

- (A) 2.7 in. (B) 6 in. (C) 13 in. (D) 13.5 in.

Short Response

6. In $\triangle QRS$, $\overline{XY} \parallel \overline{SR}$. \overline{XY} divides \overline{QR} and \overline{QS} into segments as follows: $\overline{SX} = 3$, $\overline{XQ} = 2x$, $\overline{RY} = 4.5$, and $\overline{YQ} = 7.5$. Write a proportion to find x . What is the length of \overline{QS} ?