

# 4-2

## Standardized Test Prep

### Triangle Congruence by SSS and SAS

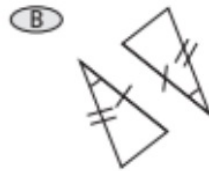
#### Multiple Choice

For Exercises 1-4, choose the correct letter.

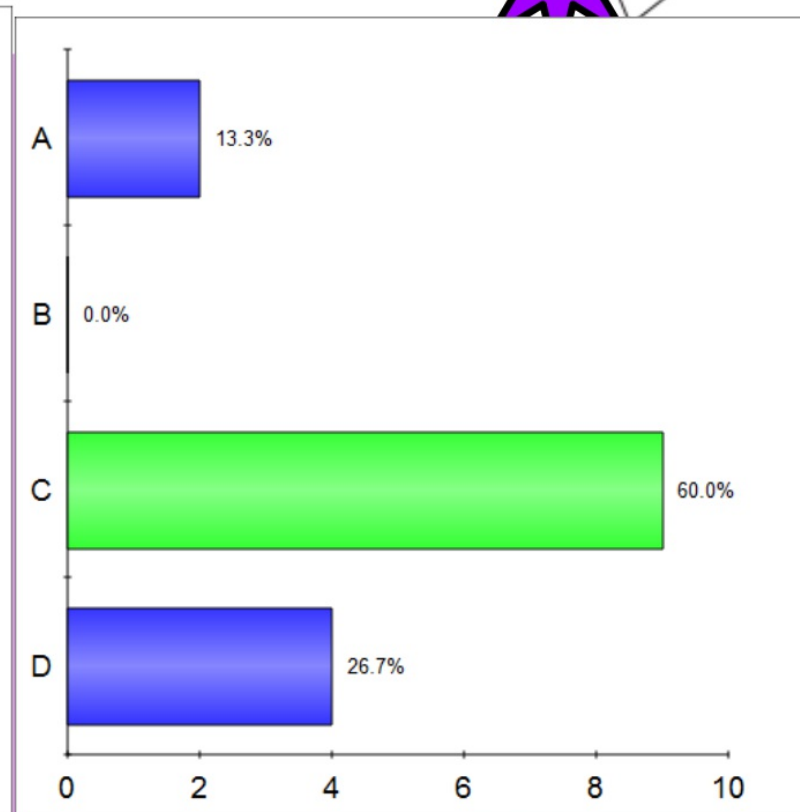
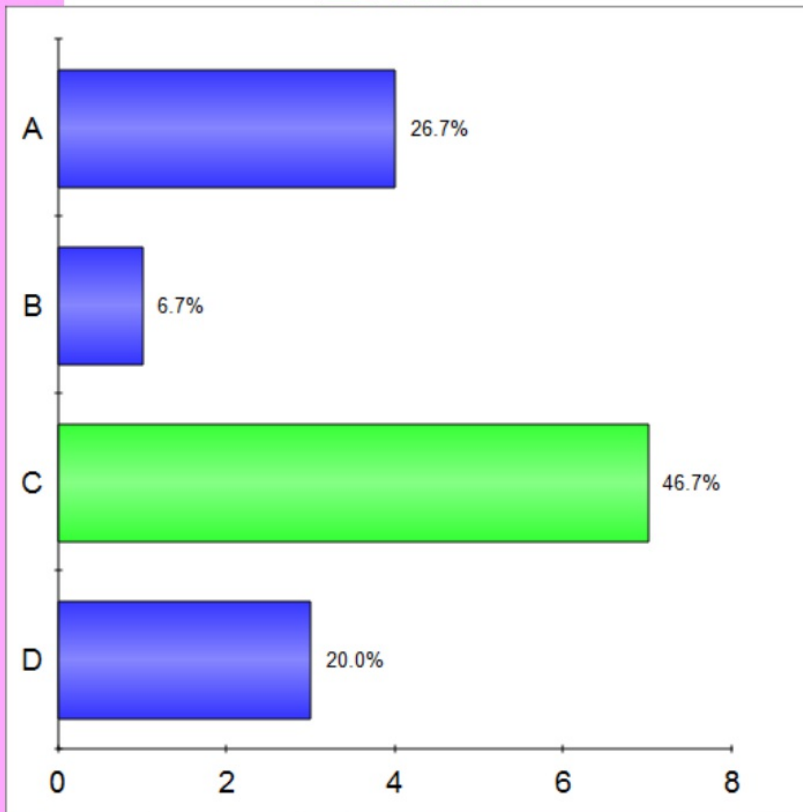
1. Which pair of triangles can be proved congruent by SSS?



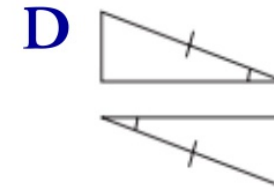
**Evens!**



**Odds!**

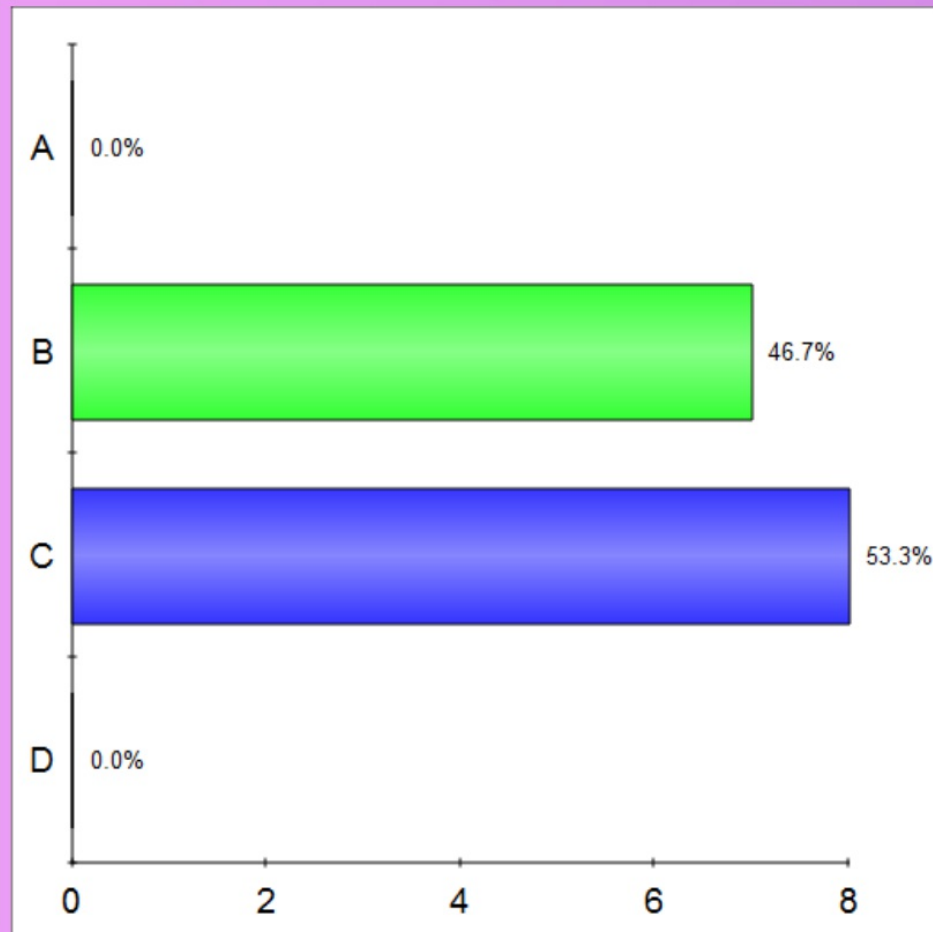
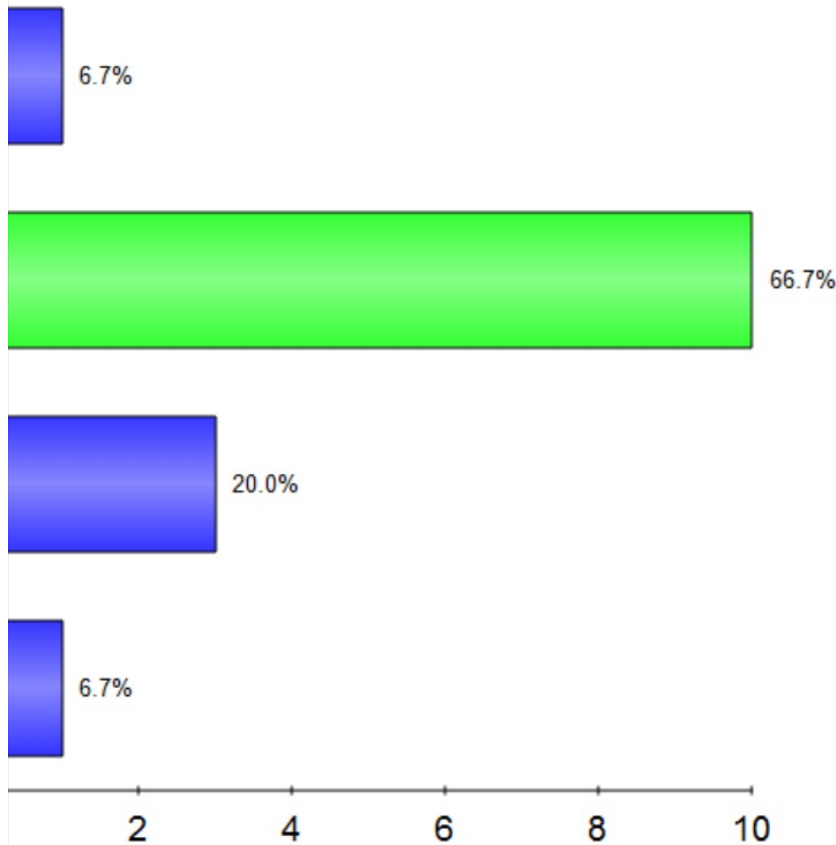


2. Which pair of triangles can be proved congruent by SAS?



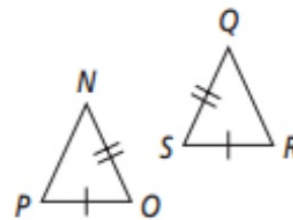
**Evens!**

**Odds!**



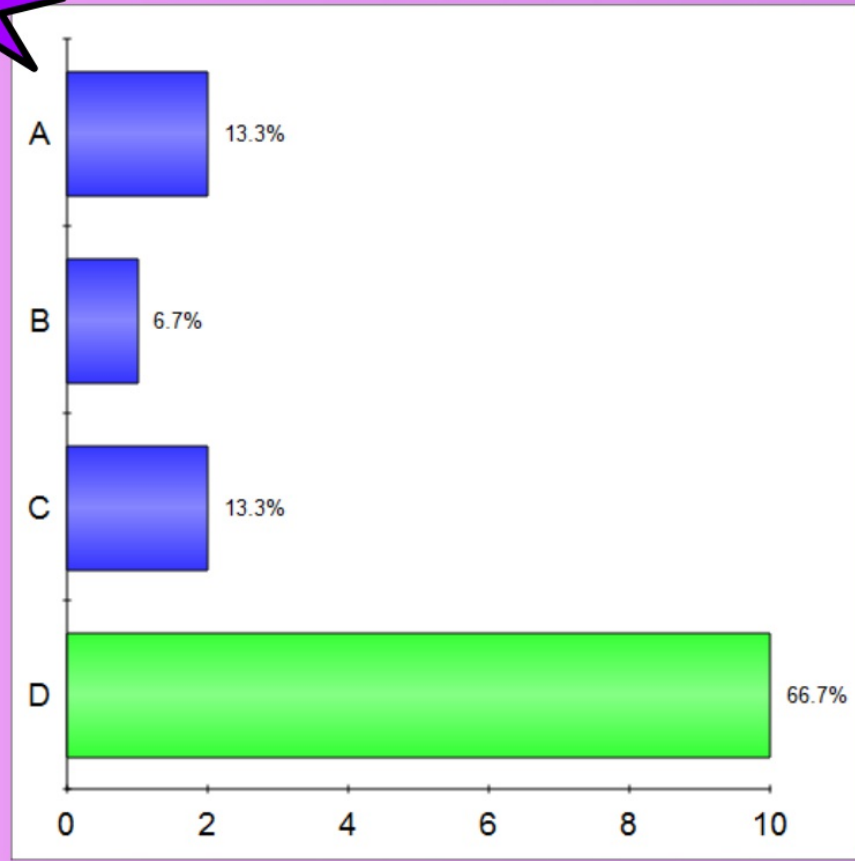
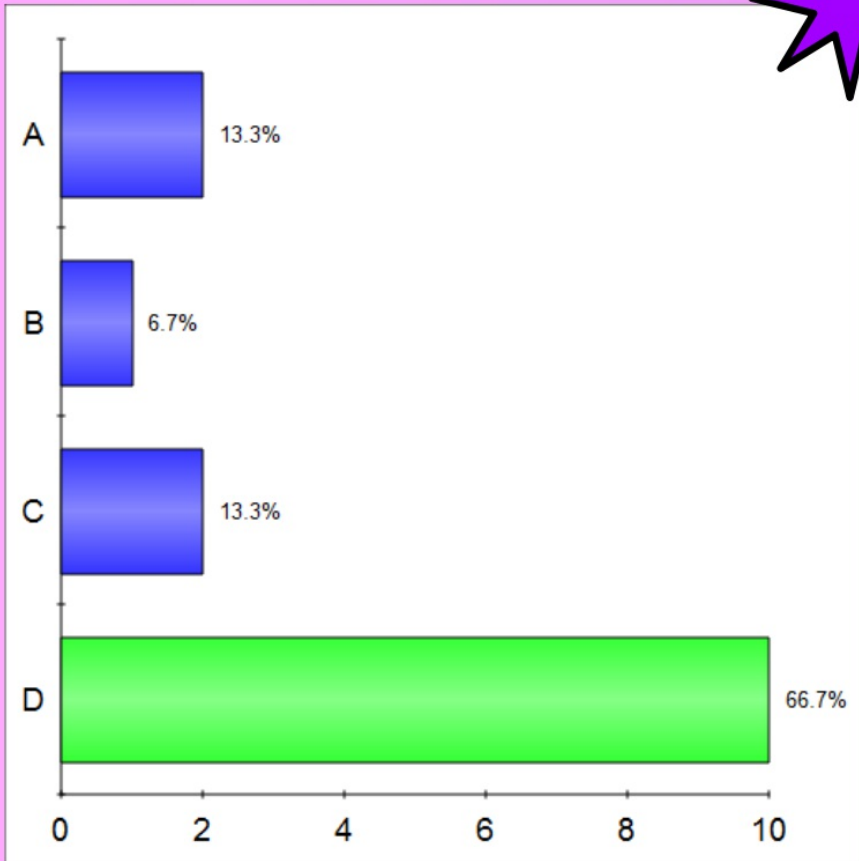
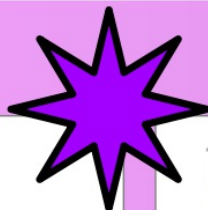
3. What additional information do you need to prove  $\triangle NOP \cong \triangle QSR$ ?

- (A)  $\overline{PN} \cong \overline{SQ}$        (C)  $\angle P \cong \angle S$   
 (B)  $\overline{NO} \cong \overline{QR}$        (D)  $\angle O \cong \angle S$



**Evens!**

**Odds!**



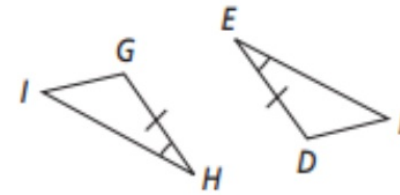
4. What additional information do you need to prove  $\triangle GHI \cong \triangle DEF$ ?

**A**  $\overline{HI} \cong \overline{EF}$

**C**  $\angle F \cong \angle G$

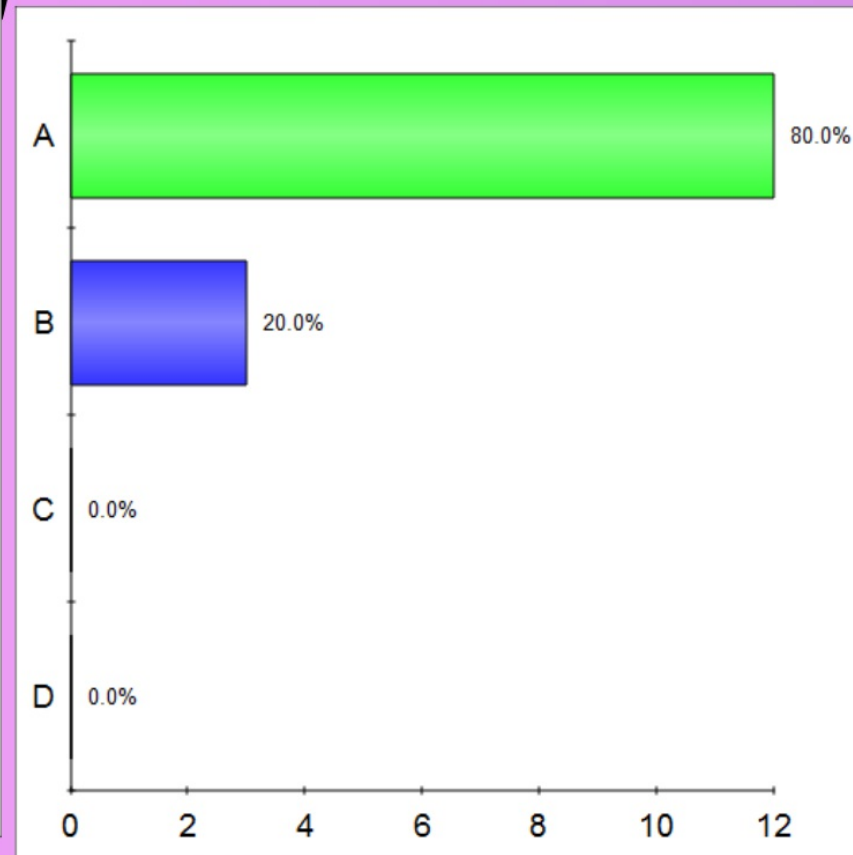
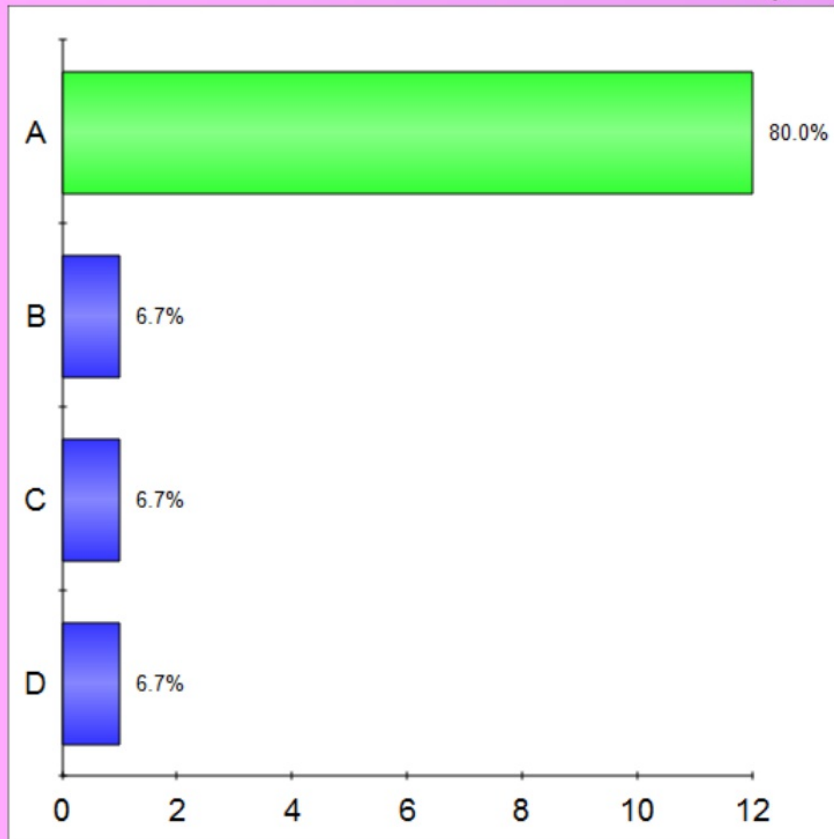
**B**  $\overline{HI} \cong \overline{ED}$

**D**  $\overline{GI} \cong \overline{DF}$



**Evens!**

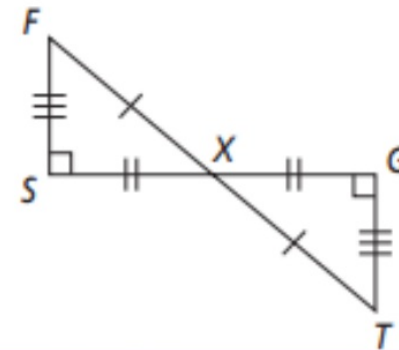
**Odds!**



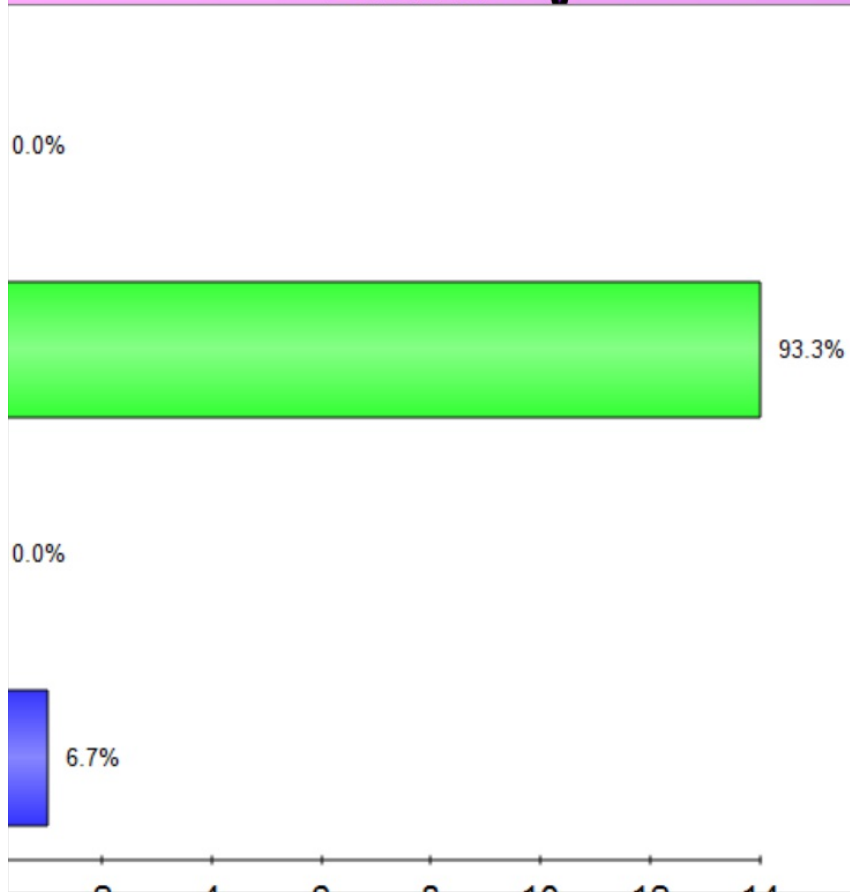
# Tie Breaker!

☆ Given the diagram at the right, which of the following must be true?

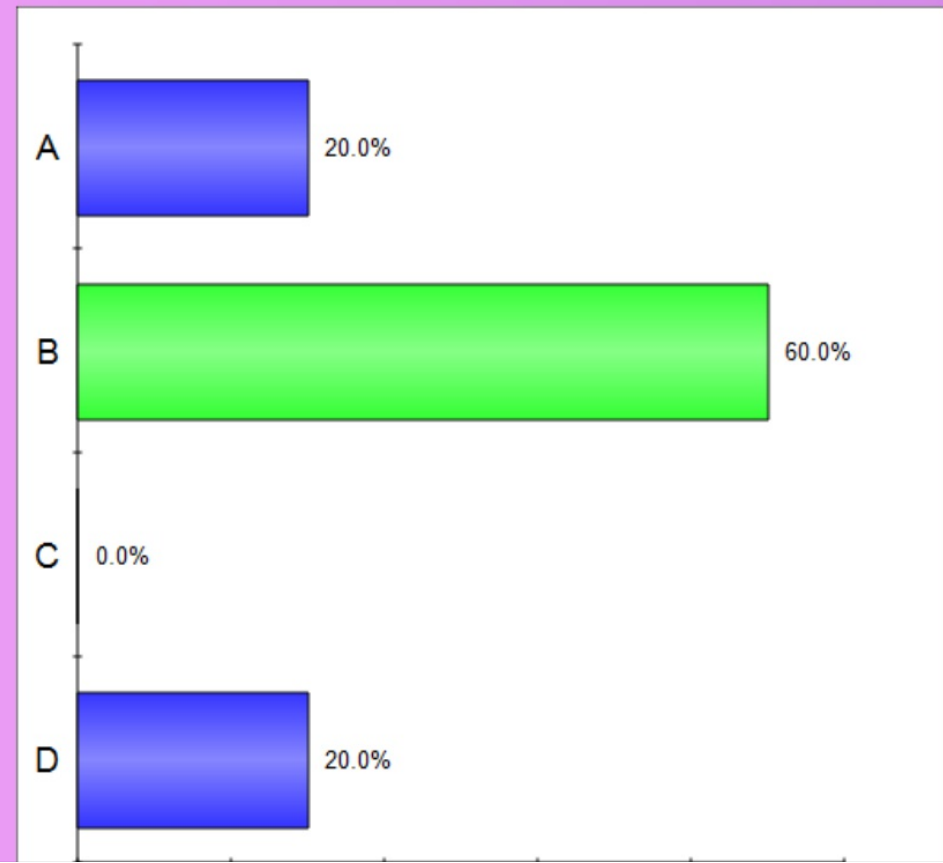
- (A)  $\triangle XSF \cong \triangle XTG$     (C)  $\triangle FXS \cong \triangle XGT$   
(B)  $\triangle SXF \cong \triangle GXT$     (D)  $\triangle FXS \cong \triangle GXT$



Evens!



Odds!

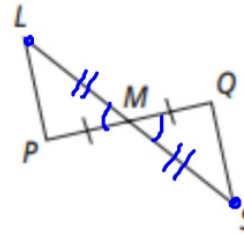


## Short Response

5. Write a two-column proof.

Given:  $M$  is the midpoint of  $\overline{LS}$ ,  $\overline{PM} \cong \overline{QM}$ . ✓

Prove:  $\triangle LMP \cong \triangle SMQ$



| statements                                | reasons              |
|---|----------------------|
| (S) $\overline{PM} \cong \overline{QM}$ ✓ | given                |
| $M$ is the midpoint                       | given                |
| (S) $\overline{LM} \cong \overline{SM}$ ✓ | def. of midpoint     |
| (A) $\angle LMP \cong \angle SMQ$ ✓       | vertical $\angle$ 's |
| $\triangle LMP \cong \triangle SMQ$       | SAS                  |