

3.3 & 5.1 Show work for 10-17

9.  $\triangle PQR \cong \triangle STU$ . Write the corresponding angle or side.

$$\overline{PQ} \cong \overline{ST}$$

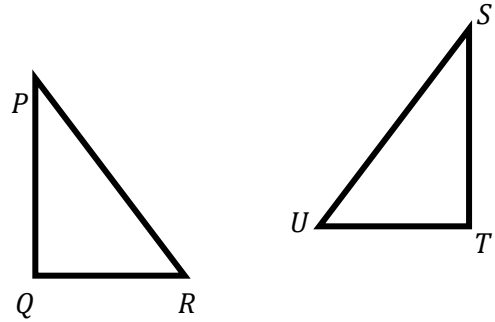
$$\angle T \cong \angle Q$$

$$\overline{QR} \cong \overline{TU}$$

$$\angle S \cong \angle P$$

$$\overline{RP} \cong \overline{US}$$

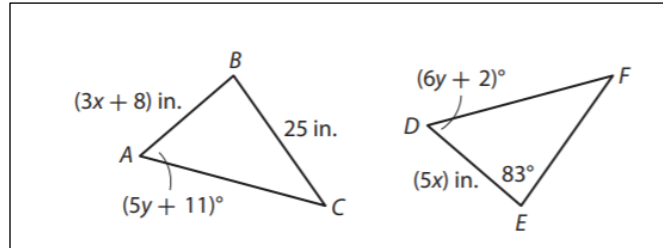
$$\angle U \cong \angle R$$



For 10-11,  $\triangle ABC \cong \triangle DEF$

10. Find  $AB$ . **20 in**

11. Find  $m\angle D$ .  **$56^\circ$**

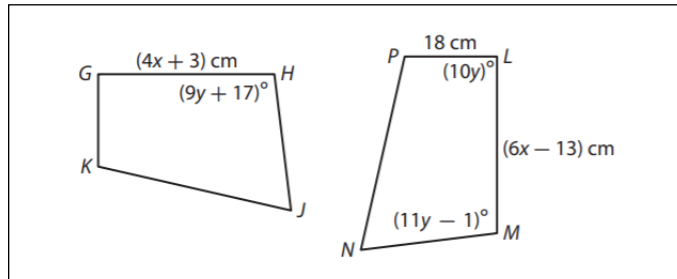


For 12-13, quadrilateral  $GHJK$  is

congruent to quadrilateral  $LMNP$ .

12. Find  $GH$ . **35 cm**

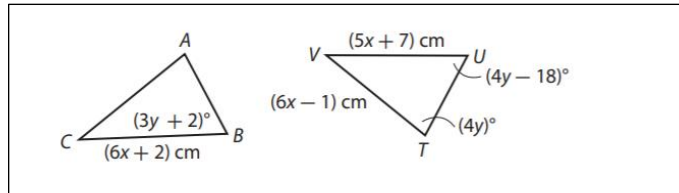
13. Find  $m\angle H$ .  **$98^\circ$**



For 14-15,  $\triangle ABC \cong \triangle TUV$ .

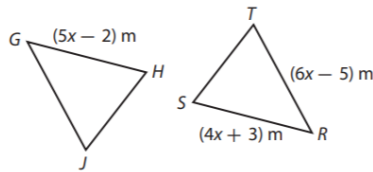
14. Find  $m\angle B$ .  **$62^\circ$**

15. Find  $BC$ . **32 cm**



16. Explain the error. A student was told that  $\triangle GHJ \cong \triangle RST$  and was asked to find  $GH$ . The student's work is shown below. Explain the error and find the correct answer.

Student's Work
$5x - 2 = 6x - 5$
$-2 = x - 5$
$3 = x$
$GH = 5x - 2 = 5(3) - 2 = 13 \text{ m}$



The error the student made is \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The correct answer is **23 m**.

17. In  $\triangle ABC$ ,  $m\angle A = 55^\circ$ ,  $m\angle B = 50^\circ$ , and  $m\angle C = 75^\circ$ . In  $\triangle DEF$ ,  $m\angle E = 50^\circ$ , and  $m\angle F = 65^\circ$ . Is it possible for the triangles to be congruent? Explain.

**No because ....**