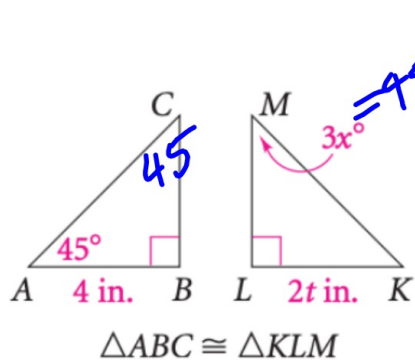


1. Find the value of variables.



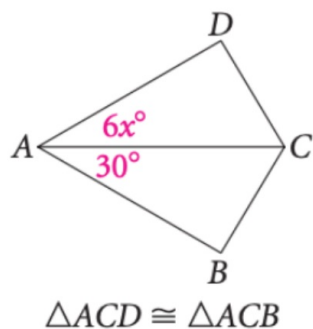
$$3x = 45$$

$$x = 15$$

$$t = 2$$

$$4 = 2t$$

2. Find the value of the variables.



$$6x = 30$$

$$x = 5$$

Algebra $\triangle ABC \cong \triangle DEF$. Find the measures of the given angles or the lengths of the given sides.

3. $m\angle B = 3y, m\angle E = 21$

$$y = 7$$

4. $BC = 3z + 2, EF = z + 6$

$$3z + 2 = z + 6$$

$$2z = 4$$

$$z = 2$$

5. $AC = 7a + 5, DF = 5a + 9 = 19$ 6. $AC = 7a + 5, DF = 5a + 9$

$$19 \quad 7a + 5 = 5a + 9$$

$$a = 2$$

7. **Developing Proof** Use the information given in the diagram. Tell why each statement is true.

a. $\overline{PR} \parallel \overline{TQ}$ **Given**

b. $\angle PRS \cong \angle QTS$

c. $\angle RPS \cong \angle TQS$ **alt int**

d. $\angle PSR \cong \angle QST$ **vertical**

e. $\overline{PR} \cong \overline{QT}$, $\overline{PS} \cong \overline{QS}$

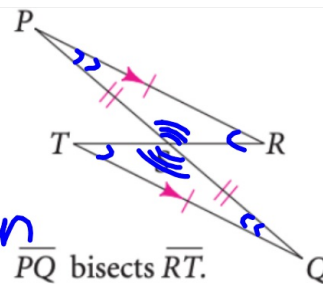
f. $\overline{PQ}$ bisects $\overline{RT}$. **Given**

g. $\overline{RS} \cong \overline{TS}$ **Given**

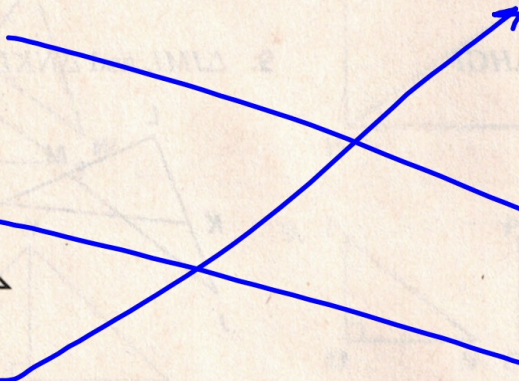
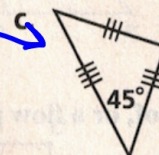
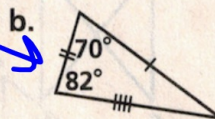
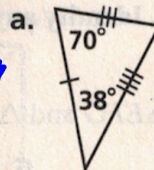
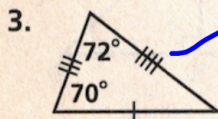
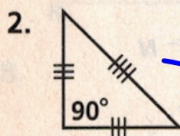
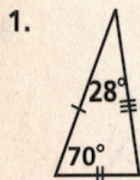
h. $\triangle PRS \cong \triangle QTS$

def of bisector

def of $\cong$
 Δ

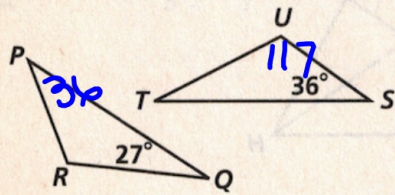


Match each triangle in the first column with a congruent triangle in the second column.

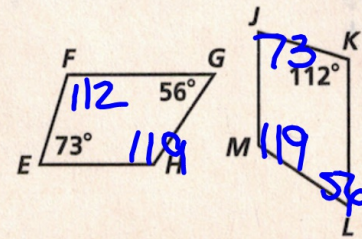


Find the measure of the indicated angle.

4. $\triangle PQR \cong \triangle STU$. Find $m\angle U$.



5. $EFGH \cong JKLM$. Find $m\angle M$.



Congruent Figures Practice

IXL #11 - G.2/G.3 & J.1 due Friday at 4pm!