

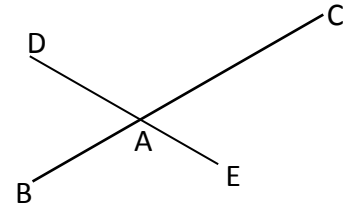
Geometry

Unit One B – Proof Quiz #1 Review (IC14/HW14)

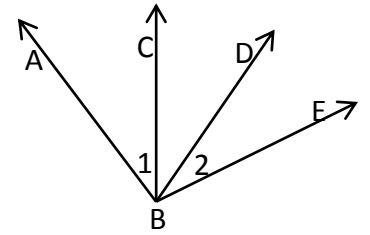
Name: \_\_\_\_\_

Date: \_\_\_\_\_ Period: \_\_\_\_\_

1. Given:  $\overline{DE}$  bisects  $\overline{BC}$ ;  $DA = 3x + 2$ ,  $AE = 2x + 8$ ,  $AC = 7x - 1$ ,  $AB = 3(x + 1)$ . Find  $BC$ .



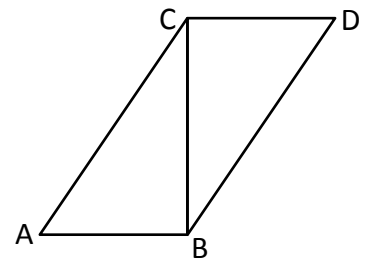
2. Given:  $\angle ABD \cong \angle CBE$ ,  $m\angle 1 = 3x$ ,  $m\angle 2 = 5x - 42$ , and  $m\angle CBD = 25^\circ$ . Find  $m\angle ABE$ .



3. Given:  $\triangle HAT \cong \triangle LOG$ ,  $m\angle A = x^3 - 4x + 8$ ,  $m\angle H = x^3 + 6x - 10$ ,  $m\angle O = x^3 - 2x + 2$ . Find  $m\angle L$ .

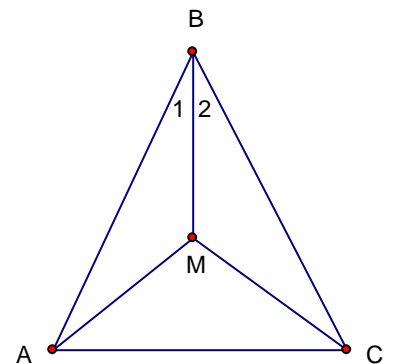
4. If  $\triangle ABC$  is an isosceles triangle with base  $\overline{AC}$ , find  $m\angle A$  if  $m\angle C = 7x + 15$ ,  $AB = 15x - 37$ , and  $BC = 5x + 23$ . Draw and label a picture to help you solve.

5. Given:  $\overline{AB} \perp \overline{BC}$ ;  $\overline{CD} \perp \overline{BC}$ ;  $\overline{AB} \cong \overline{DC}$   
 Prove:  $\triangle CAB \cong \triangle BDC$



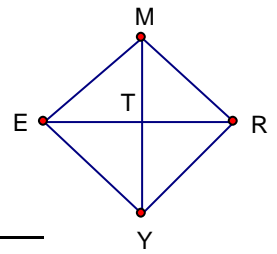
Statements	Reasons
1. $\overline{AB} \perp \overline{BC}$	1.
2.	2. Definition of $\perp$
3.	3. Given
4.	4.
5. $\angle ABC \cong \angle DCB$	5.
6. $\overline{AB} \cong \overline{DC}$	6.
7.	7.
8.	8.

6. Given:  $\overline{AB} \cong \overline{CB}$ ;  $\overline{BM}$  bisects  $\angle ABC$   
 Prove:  $\triangle AMB \cong \triangle CMB$



Statements	Reasons
1. $\overline{AB} \cong \overline{CB}$	1.
2.	2. Given
3.	3.
4.	4.
5. $\triangle \underline{\hspace{1cm}} \cong \triangle \underline{\hspace{1cm}}$	5.

7. Given: T is the midpoint of  $\overline{ER}$ ;  $\overline{ME} \cong \overline{MR}$   
 Prove:  $\triangle MTE \cong \triangle MTR$



Statements	Reasons

8. Given  $GHOUL \cong CANDY$ , fill in the statements below.

a)  $\overline{OH} \cong$  \_\_\_\_\_

b)  $\overline{YC} \cong$  \_\_\_\_\_

c)  $\angle U \cong \angle$  \_\_\_\_\_

d)  $\angle A \cong \angle$  \_\_\_\_\_

