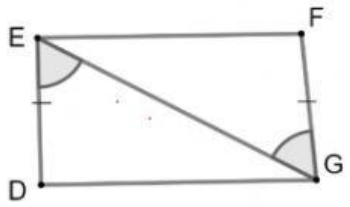
MATH 8 Q4 - LEARNING ACTIVITY SHEET 3a

Activity 1: Write the letter of your correct answer on the box provided.

Directions: Complete the following proof by choosing the missing statements or reasons, from the box.

C. Given : $\overline{DE} \cong \overline{FG}$
$m\angle DEG > m\angle FGE$
Prove: $\overline{DG} > \overline{FE}$



CHOICES:

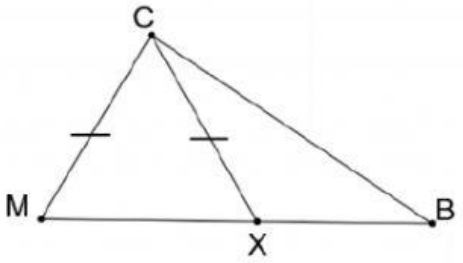
a. $\overline{FE}$	b. Given	c. Reflexive Property	d. $\overline{FG}$

You can use one letter twice.

Proof:

Statements	Reasons
1. $\overline{DE} \cong$ ____	1. _____
2. $m\angle DEG \cong m\angle FGE$	2. _____
3. $\overline{EG} \cong \overline{EG}$	3. _____
4. $\overline{DG} >$ ____	4. Hinge Theorem

D. Given: X is the midpoint of $\overline{MB}$ and $\overline{CB} > \overline{CM}$
Δ MCX is isosceles Δ
Prove: $m\angle CXB > m\angle CMX$



CHOICES:

a. Reflexive prop.	b. Δ MCX	c. Isosceles Δ theorem	d. $\overline{BX}$	e. Given

Proof:

Statements	Reasons
1. X is the midpoint of $\overline{MB}$	1. _____
2. _____ is Isosceles Δ	2. Given
3. $\overline{MX} \cong$ _____	3. Def. of midpoint
4. $\overline{CX} \cong \overline{CX}$	4. _____
5. $\overline{CB} > \overline{CM}$	5. Given
6. $m\angle CXB > m\angle CXM$	6. Converse of hinge theorem
7. $\overline{CM} \cong \overline{CX}$	7. Def. of Isosceles Δ
8. $\angle CMX \cong m\angle CXM$	8. _____
9. $m\angle CXB > m\angle CMX$	Substitution

TOTAL: 10 POINTS