

MATH 8 Q4 - LEARNING ACTIVITY SHEET 3a

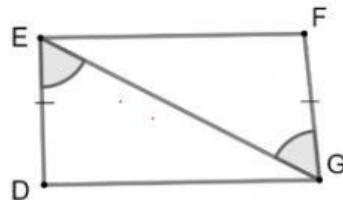
Activity 1:

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}
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You can use one letter twice.

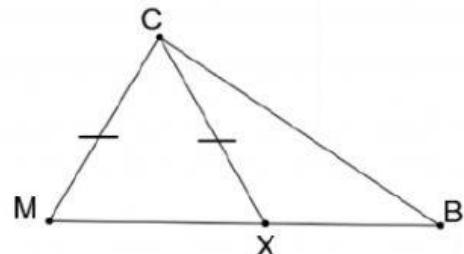
Proof:

Statements	Reasons
1. $\overline{DE} \cong \underline{\hspace{1cm}}$	1. <u> </u>
2. $m\angle DEG \cong m\angle FGE$	2. <u> </u>
3. $\overline{EG} \cong \overline{EG}$	3. <u> </u>
4. $\overline{DG} > \underline{\hspace{1cm}}$	4. Hinge Theorem

D. Given: X is the midpoint of \overline{MB} and $\overline{CB} > \overline{CM}$

$\triangle MCX$ is isosceles \triangle

Prove: $m\angle CXB > m\angle CMX$



CHOICES:

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

Statements	Reasons
1. X is the midpoint of \overline{MB}	1. <u> </u>
2. <u> </u> is Isosceles \triangle	2. Given
3. $\overline{MX} \cong \underline{\hspace{1cm}}$	3. Def. of midpoint
4. $\overline{CX} \cong \overline{CX}$	4. <u> </u>
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 \triangle
8. $m\angle CMX \cong m\angle CXM$	8. <u> </u>
9. $m\angle CXB > m\angle CMX$	Substitution

TOTAL: 10 POINTS