Warmup 2/$(\pi + (20 - \pi))$

↗ **PLEASE GET THE FOLLOWING SUPPLIES:**

↗ **Giant whiteboard for your group, marker, eraser**

A cab company uses the model $f(x) = 2.75x + 4$ to calculate the cost of a cab ride.
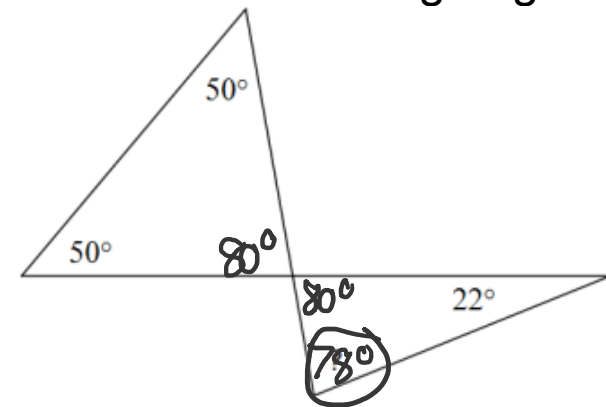
1. What does the value "x" probably stand for?

   # miles

2. What is the meaning of the coefficient of x?

   cost per mile

3. What does the constant tell us?

   "starting" fee

Find the missing angle.

50°

50°   80°

80°

78°   22°
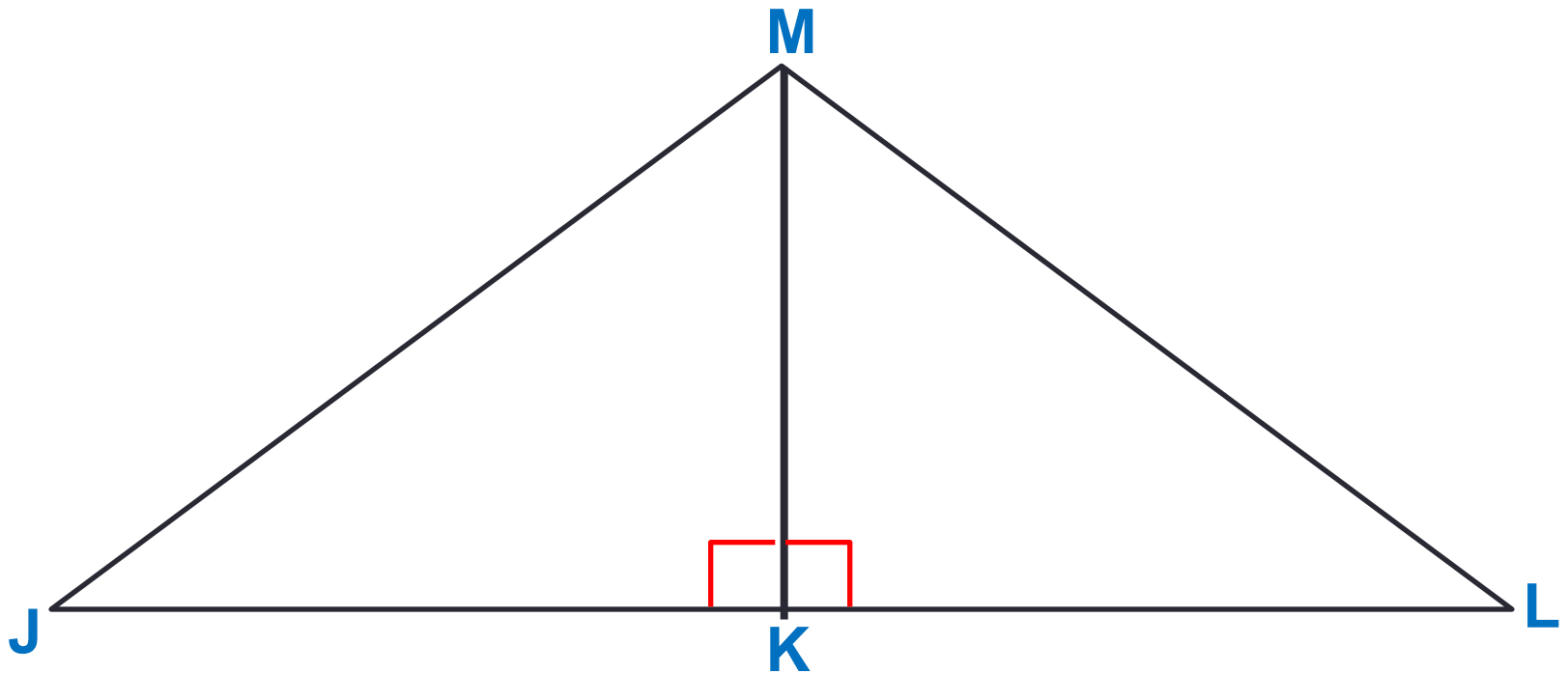
Simplify using exponent rules.

$$\frac{48x^3y^{-2}}{48x^5y^5} \rightarrow \frac{1}{x^2y^7}$$

x^2

Check Homework
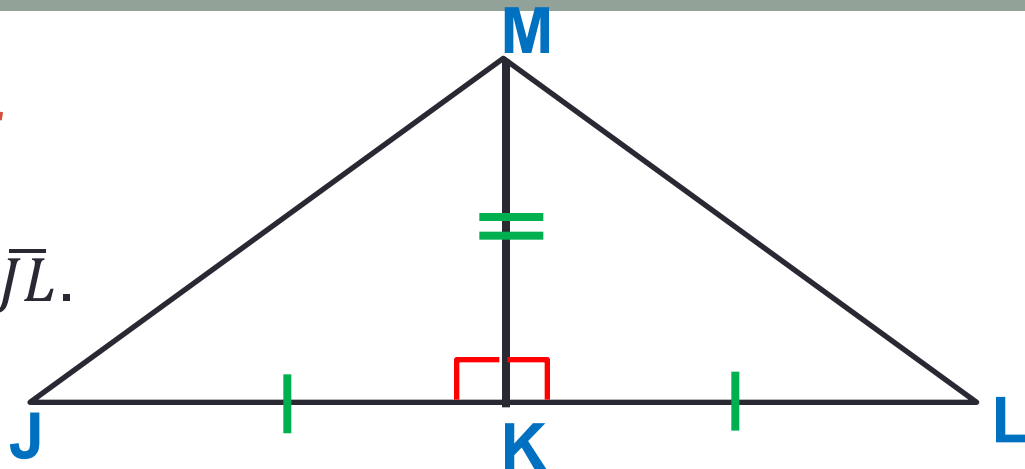
Given: K is the midpoint of $\overline{JL}$.

Prove: $\triangle JKM \cong \triangle LKM$

Flow-Chart Proof

Given: K is the midpoint of $\overline{JL}$.

Prove: $\Delta JKM \cong \Delta LKM$

Reflexive Prop. $\overline{KM} \cong \overline{KM}$		
Given: $\angle JKM \cong \angle LKM$		**SAS** $\Delta JKM \cong \Delta LKM$
Given: K is the midpoint of $\overline{JL}$	**Def. of midpoint:** $\overline{JK} \cong \overline{LK}$	

Two-Column Proof

Given: K is the midpoint of $\overline{JL}$.

Prove: $\Delta JKM \cong \Delta LKM$
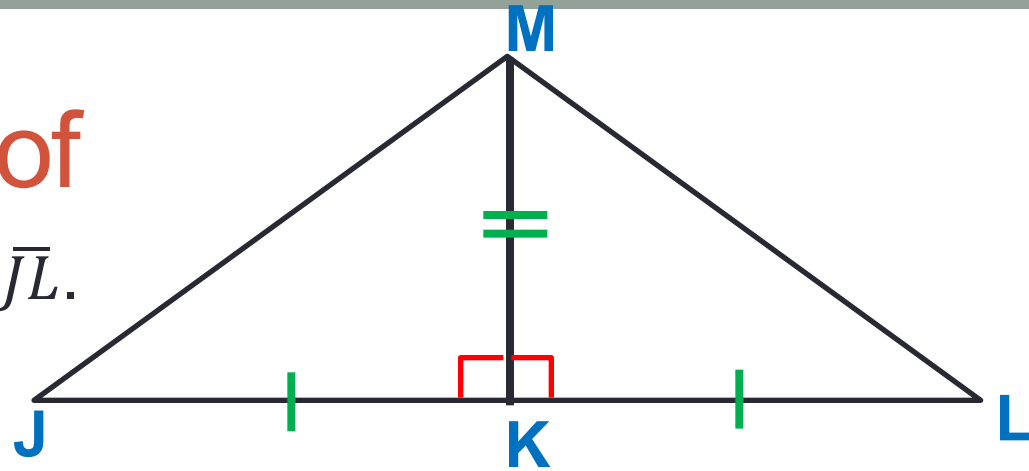
Statement	Reason
1) $\overline{MK} \cong \overline{MK}$	1) Reflexive Property
2) $\angle JKM \cong \angle LKM$	2) Given
3) K is the midpoint of $\overline{JL}$	3) Given
4) $\overline{JK} \cong \overline{LK}$	4) Definition of midpoint
5) $\Delta JKM \cong \Delta LKM$	5) SAS

On your giant whiteboards, write a proof:

Given: $\overline{QR}$ bisects $\angle PQS$.

Prove: $\triangle PQR \cong \triangle SQR$

1) $\overline{QR}$ bisects $\angle PQS$ — Given

2) $\angle PQR \cong \angle SQR$ — Def'n of angle bisector

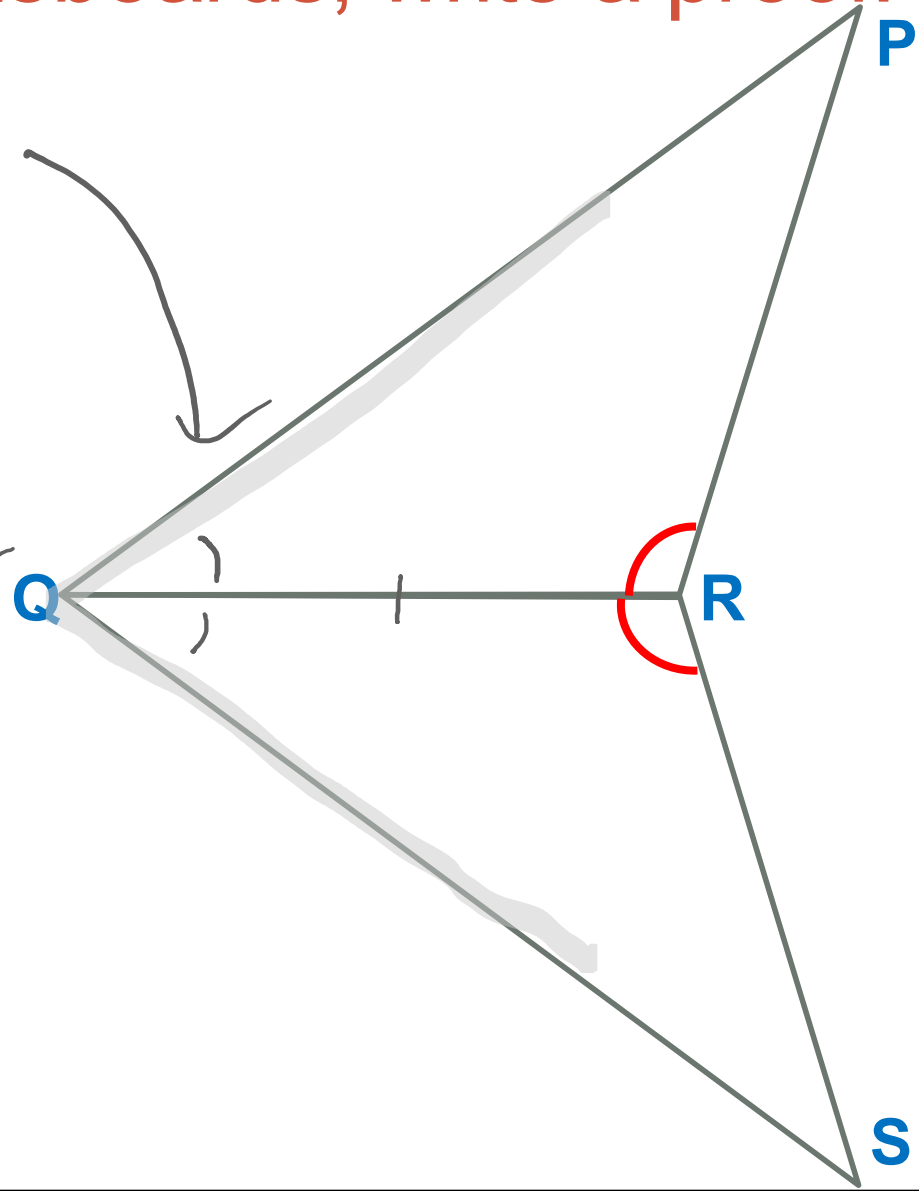3) $\overline{QR} \cong \overline{QR}$ — Reflexive Prop.

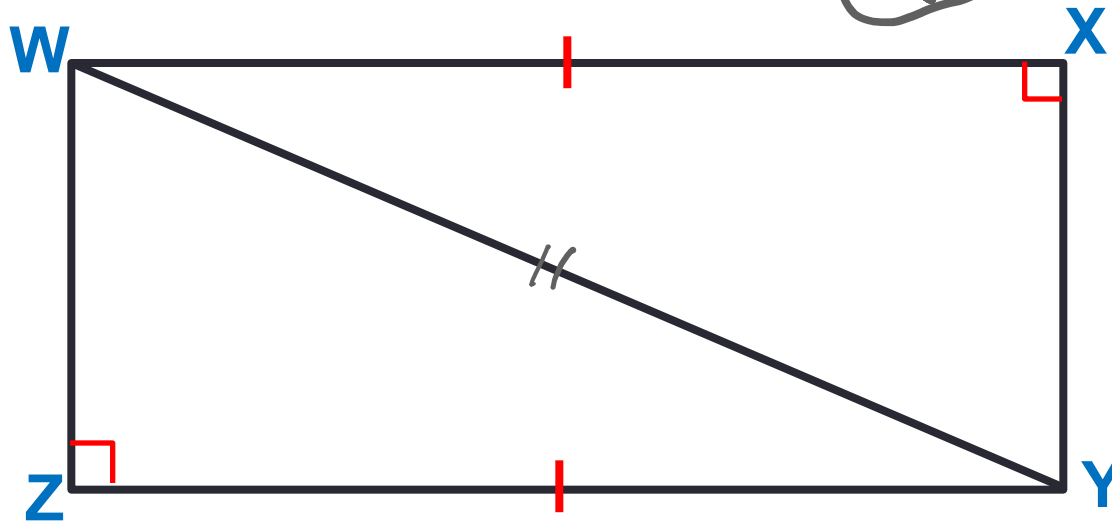4) $\angle PRQ \cong \angle SRQ$ — Given

5) $\triangle PQR \cong \triangle SQR$ — ASA

P

Q
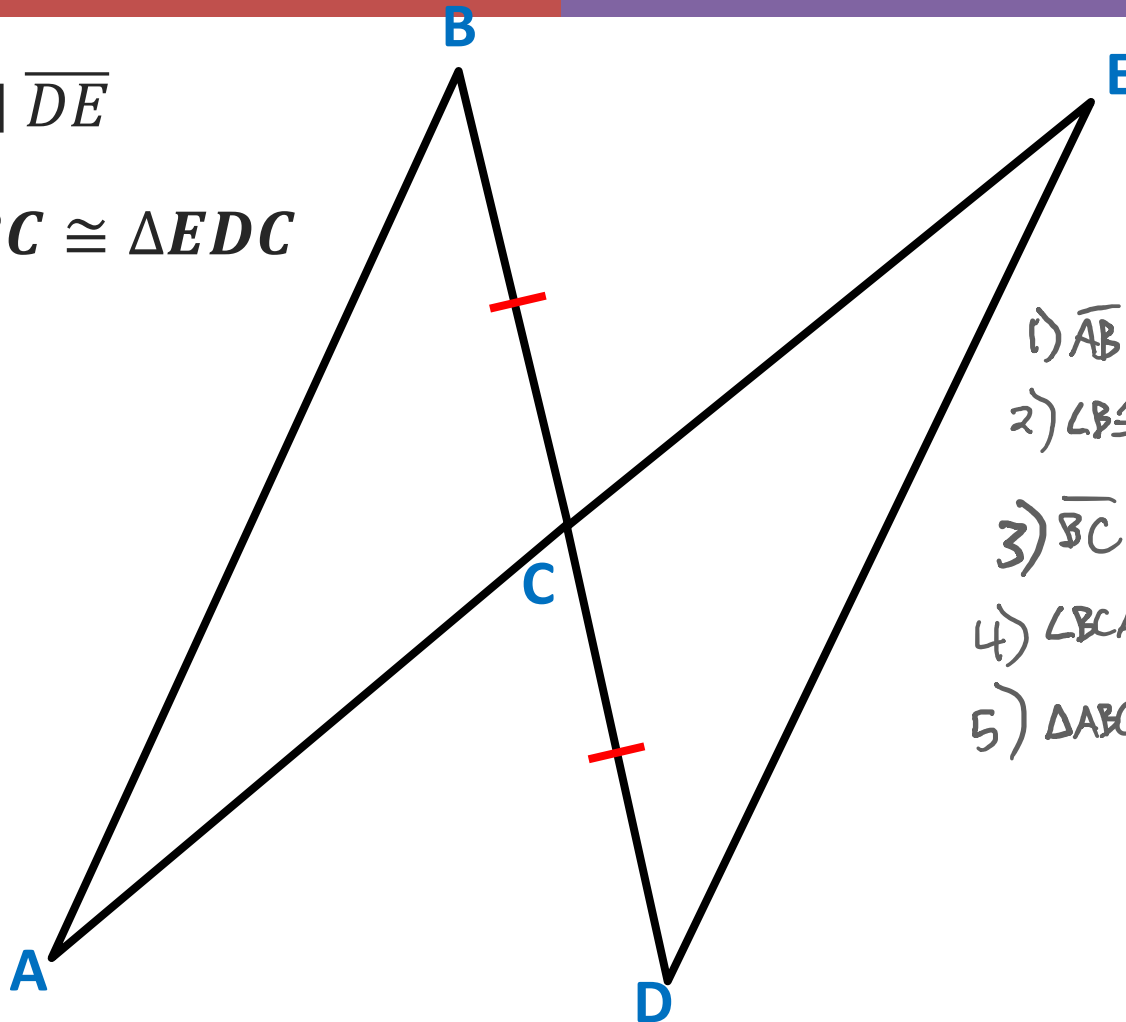
R

S

On your giant whiteboards, write a proof:

Prove: $\Delta WXY \cong \Delta YZW$

Proofs Handout

On your whiteboards, write a proof:

Given: $\overline{AB} \parallel \overline{DE}$
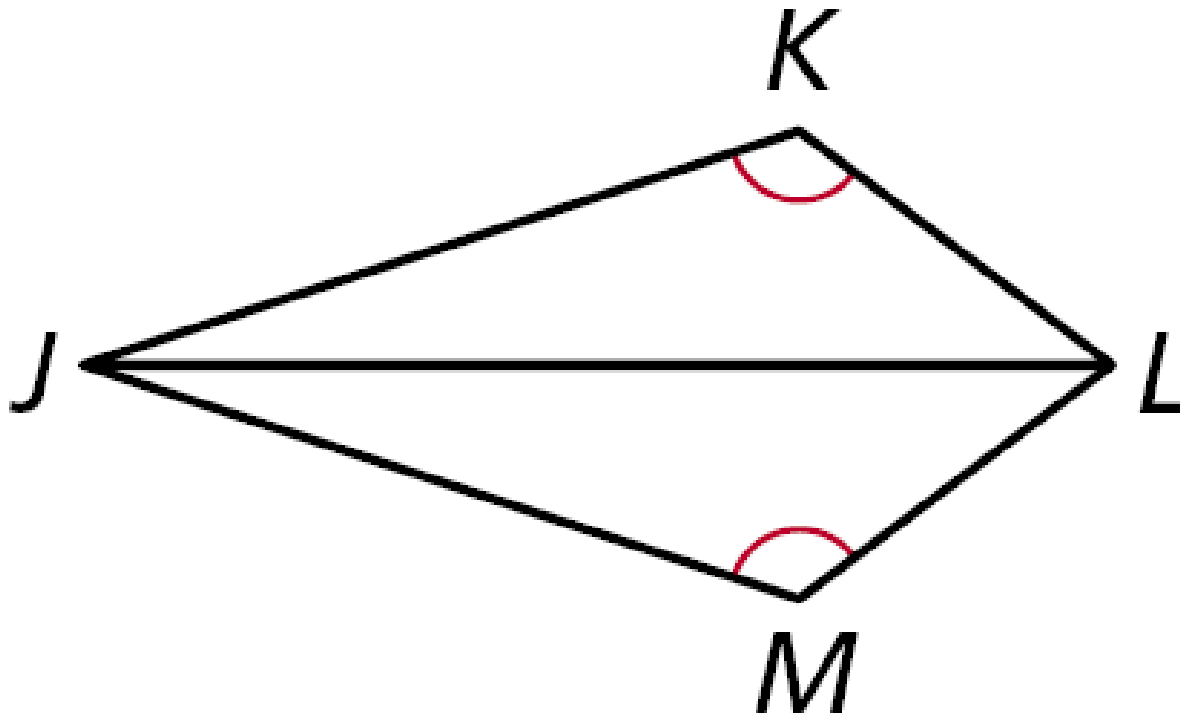
Prove: $\triangle ABC \cong \triangle EDC$

1) $\overline{AB} \parallel \overline{DE}$ — Given
2) $\angle B \cong \angle D$ — Alt. Int. $\angle$'s Thm.
3) $\overline{BC} \cong \overline{DC}$ — Given
4) $\angle BCA \cong \angle DCE$ — Vertical $\angle$'s
5) $\triangle ABC \cong \triangle EDC$ — ASA

Write a flowchart proof!

Given: $\overline{JL}$ bisects $\angle KLM$

Prove: $\triangle JKL \cong \triangle JML$

$\overline{JL}$ bisects ∠KLM.

Given

∠KLJ ≅ ∠MLJ

Def. of ∠ bisector

∠K ≅ ∠M

Given

$\overline{JL}$ ≅ $\overline{JL}$

Reflex.
Prop. of ≅

△JKL ≅ △JML

AAS

Proofs Worksheet