## GEOMETRY FINAL EXAM REVIEW 2017

$\square$

Translate the figure 4 units to the left and 2 units down.


Write this rule algebraically.

Find the coordinates of the vertices after the given transformation
translation: $(x, y) \rightarrow(x-4, y+2)$


Reflect over the x -axis

$\square$
Rotate $180^{\circ}$ clockwise.


Rotate $90^{\circ}$ clockwise.


## $\square$

$\angle 1=130^{\circ}$
$\qquad$ because it is $\qquad$ with $\angle 1$
$\angle 3=$ $\qquad$ because it is $\qquad$ with $\angle 2$
$\angle 4=$ $\qquad$ because it is $\qquad$ with $\angle 3$
$\angle 5=$ $\qquad$ because it is $\qquad$ with $\angle 4$
$\angle 6=$ $\qquad$ because it is $\qquad$ with $\angle 5$
$\angle 7=$ $\qquad$ because it is $\qquad$ with $\angle 6$
$\angle 8=$ $\qquad$ because it is $\qquad$ with $\angle 7$
$\angle 9=$ $\qquad$ because it is $\qquad$ with $\angle 8$
$\angle 10=$ $\qquad$ because it is $\qquad$ with $\angle 9$
$\angle 11=$ $\qquad$ because it is $\qquad$ with $\angle 10$
$\angle 12=$ $\qquad$ because it is $\qquad$ with $\angle 11$
$\angle 13=$ $\qquad$ because it is $\qquad$ with $\angle 12$


State if the two triangles are congruent. If they are, state how you know.
$\square$
Find the missing length.


Which of the other triangles is similar to $\triangle A B C$ and why?

b)

c)


## Are these triangles similar?



How do you know?

| Find $\sin (X)$ | Find $\tan (Z)$ |
| :---: | :---: |
| Find $\cos (Z)$ | Find $\sin (Z)$ |


| Use the Pythagorean theorem to find the missing side. | Use the Pythagorean theorem to find the missing side. |
| :--- | :--- |
| Use the Pythagorean theorem to determine if the |  |
| triangle is a right triangle. | Use the Pythagorean theorem to determine if the |
| triangle is a right triangle. |  |



