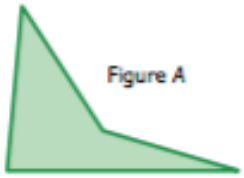
Unit 3 Study Guide!

1)

What is the resulting figure after rotating Figure A 90°?



A

B

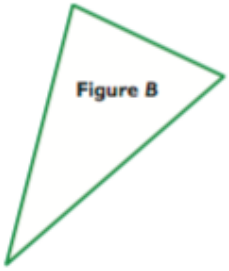
C

D

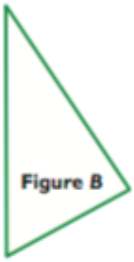
2) 5.

Which figure could be a reflection of Figure A?

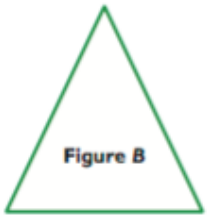
A



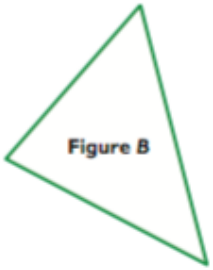
B



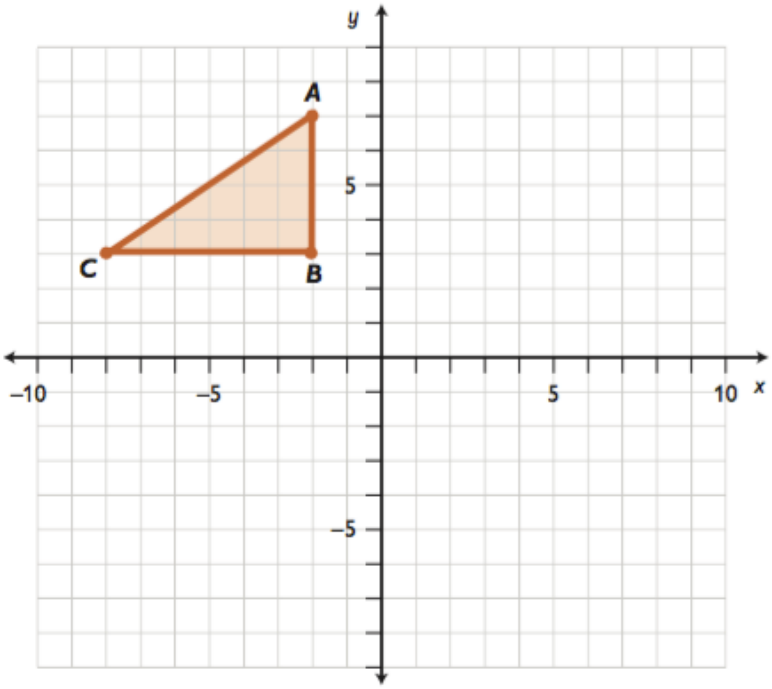
C



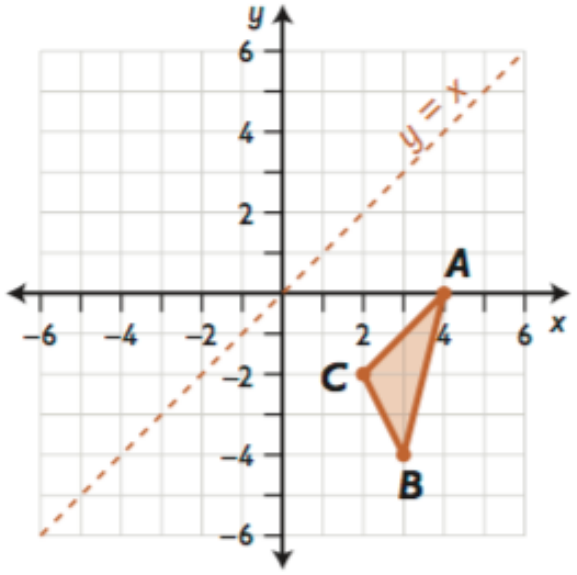
D



3) Use the coordinate grid to plot $\Delta A'B'C'$, which is a reflection of ΔABC over the y-axis.

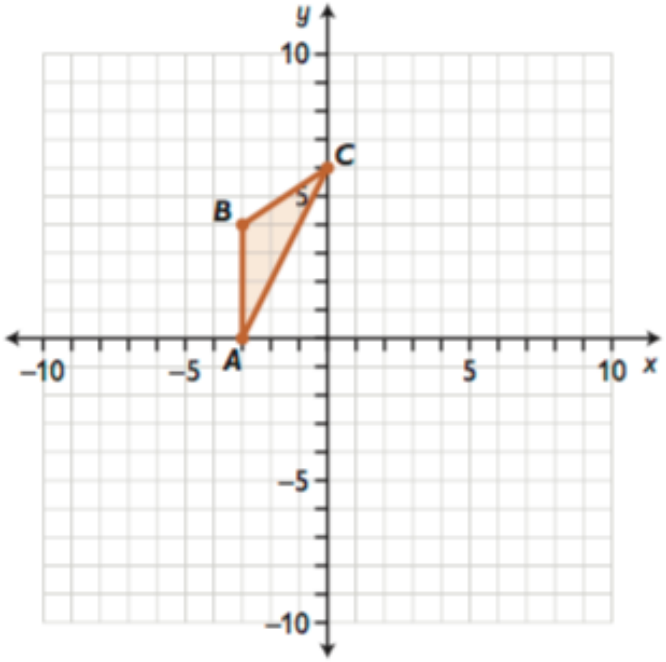


4) List the vertices that result from the reflection of ΔABC across the line $y = x$. Plot the reflected triangle.

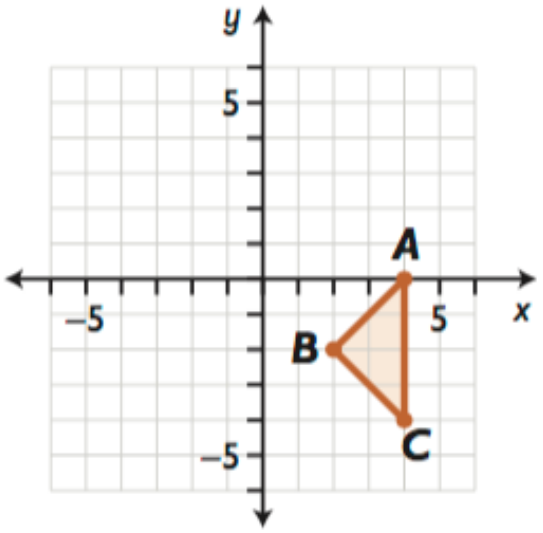


5) Explain why reflected figures are always congruent to their original figures.

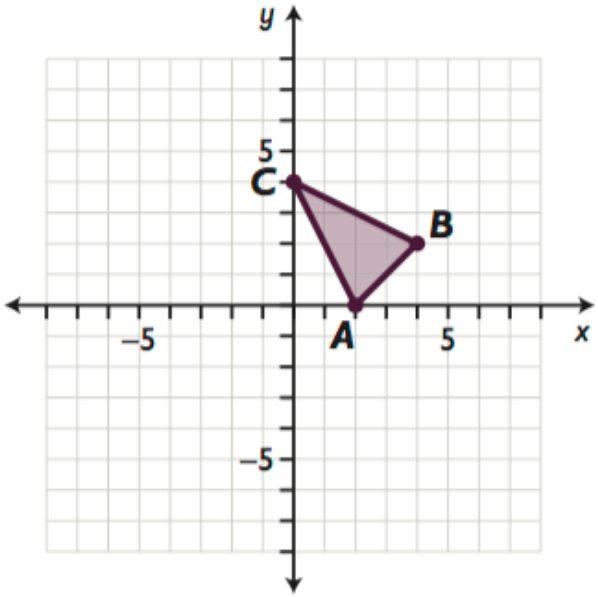
6) List the vertices that result from the $-270°$ rotation of ΔABC around point $(0, 6)$. Plot the rotated triangle.



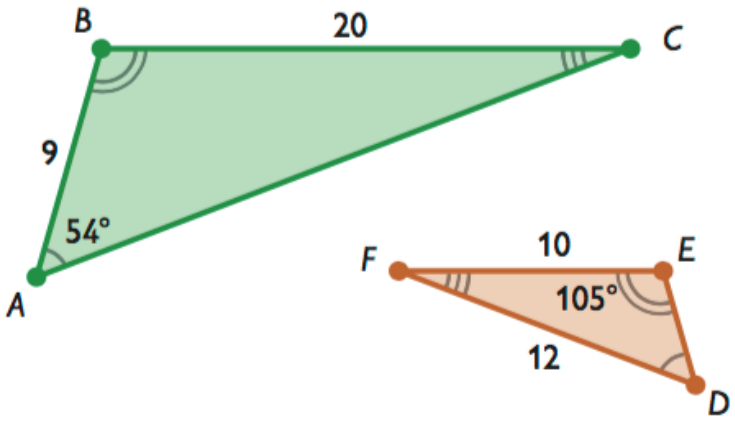
7) List the vertices that result from the translation of ΔABC 3 units left and 4 units up. Plot the translated triangle.



8) List the vertices that result from the dilation of ΔABC by a scale factor of 1.5 with the origin as the center of dilation. Plot the dilated triangle.



9) ΔABC and ΔDEF are similar. Find the missing side lengths and angle measures.



$\angle B =$ _____°

$\angle C =$ _____°

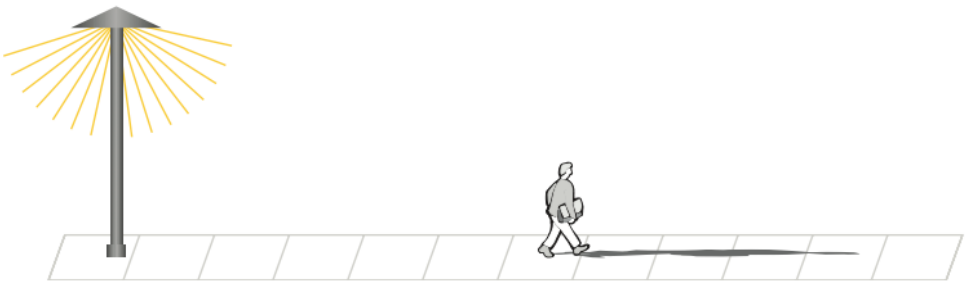
$\angle D =$ _____°

$\angle F =$ _____°

$AC =$ _____ units

$DE =$ _____ units

10)



The man in the picture is 5 ft. tall. The streetlight is 20 ft. high. How long is his shadow when he is 60 ft. from the streetlight? Show your work

11) How do you know these triangles are similar?