

Name: _____ Date: _____

9. The table below shows the coordinates of triangle RST and the coordinates of R' in triangle R'S'T'. Triangle R'S'T' is a dilation of triangle RST.

Triangle RST		Triangle R'S'T'	
R	(-2, -3)	R'	(-6, -9)
S	(0, 2)	S'	
T	(2, -3)	T'	

Part A

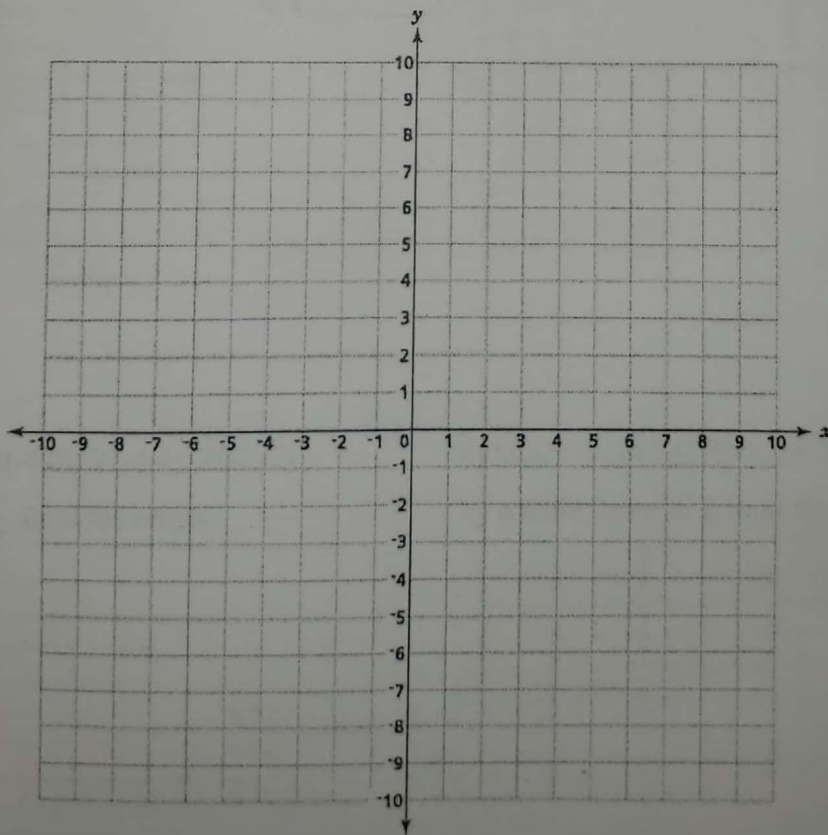
What are the coordinates of point S' and point T'?

Answer S' = (____, ____)

T' = (____, ____)

Part B

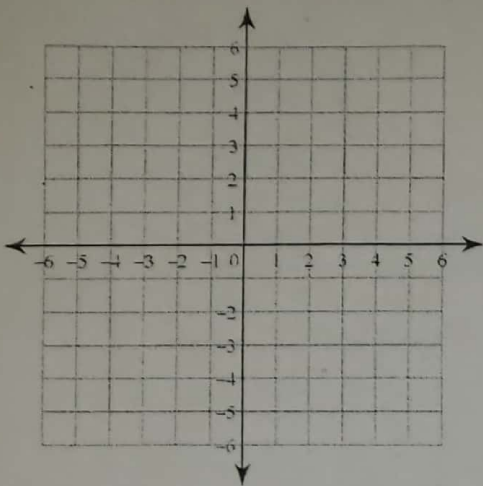
On the grid below, draw triangle RST and triangle R'S'T'.



Do the following problem with the class, then write down the process on the right:

Dilate $\triangle ADI$, $A(-1,-1)$, $D(0,2)$, $I(3,1)$
by a scale factor of 2 from the origin.

A' (____,____) How do you do a dilation from the origin?
 B' (____,____)
 C' (____,____)

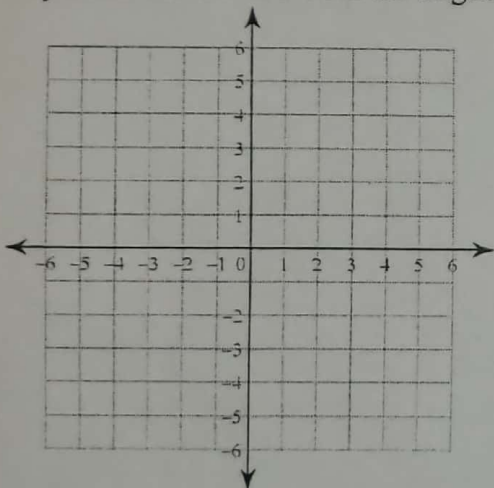


What are the important pieces of information given for a dilation?

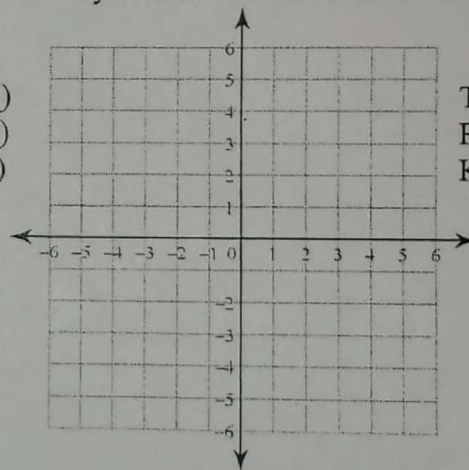
Do the next 4 dilation problems. Check your answers with a neighbor.

1) Dilate $\triangle QRS$ if $Q(-1,0)$, $R(-1,2)$, $S(-2,1)$
by a scale factor of 2 from the origin.

2) Dilate $\triangle TRK$ if $T(-1,-2)$, $R(1,0)$, $K(0,1)$
by a scale factor of 3 from the origin.



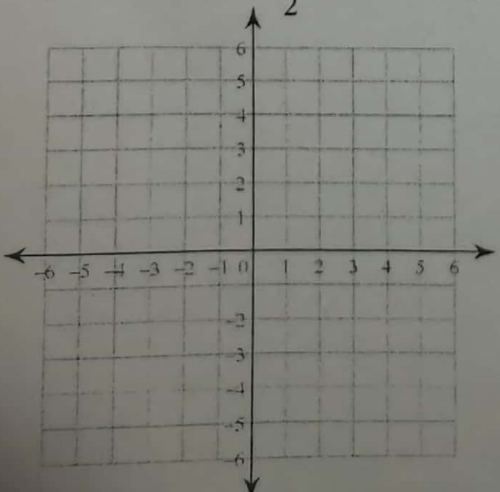
Q' (____,____)
 R' (____,____)
 S' (____,____)



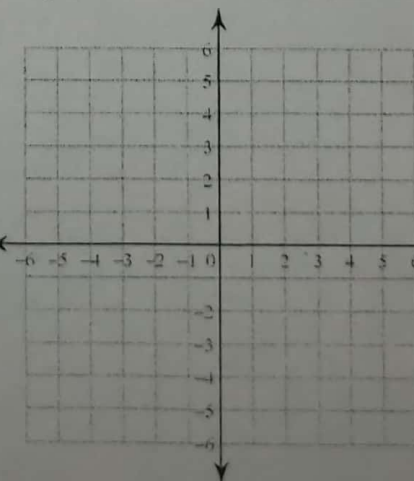
T' (____,____)
 R' (____,____)
 K' (____,____)

3) Dilate $\triangle XYZ$ if $X(-4,0)$, $Y(-4,4)$, $Z(-2,-2)$
by a scale factor of $\frac{1}{2}$ from the origin.

4) Dilate $\triangle HAT$ if $H(-1,-1)$, $A(1,0)$, $T(-1,2)$
by a scale factor of 2 from the point $(-1,2)$



X' (____,____)
 Y' (____,____)
 Z' (____,____)



H' (____,____)
 A' (____,____)
 T' (____,____)