Geometry Name: _____

Unit Two – G.SRT.1-3 Review (IC/HW7) Date: _____ Period: _____

For each multiple choice question, please circle your answer.

1. Which of the following is a dilation?

A) $T(x,y) \text{----->} (x-4, y+3)$ B) $T(x,y) \text{----->} (y,x)$

C) $T(x,y) \text{----->} (2x,2y)$ D) $T(x,y) \text{----->} (5x,3y)$

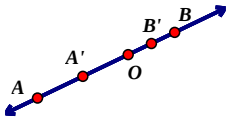
2. Which of the following scale factors is a reduction?

A) 1 : 3 B) 0.5 : 0.75 C) 3 : 2 D) 1 : 1.0055

3. Which of the following scale factors is an enlargement?

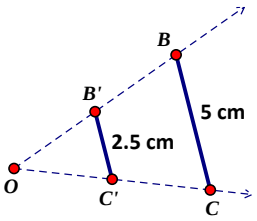
A) 500 : 50 B) 0.01 : 0.1 C) 7 : 3.5 D) 0.1 : 0.01

4. Determine the scale factor that best suits the provided diagram (O is the center of dilation).



A) 2 B) $\frac{1}{2}$ C) $\frac{1}{3}$ D) - 1

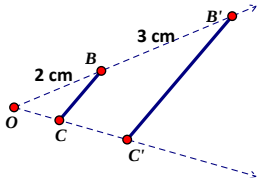
5. Determine the scale factor of the given dilation from point O?



A) 1 : 2 B) 2 : 1

C) 2 : 5 D) 5 : 2

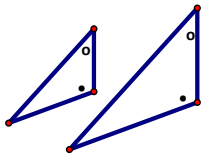
6. Determine the scale factor of the given dilation from point O?



A) 2 : 3 B) 1 : 1.5

C) 2 : 5 D) 3 : 2

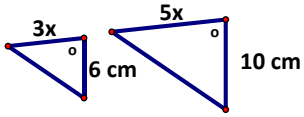
7. Which of the following would be the criterion for establishing similarity in the two triangles?



A) AA~ B) SAS~

C) SSS~ D) Not enough info or not similar

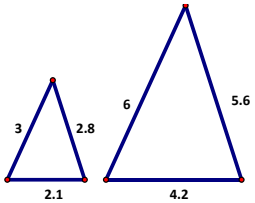
8. Which of the following would be the criterion for establishing similarity in the two triangles?



A) AA~ B) SAS~

C) SSS~ D) Not enough info or not similar

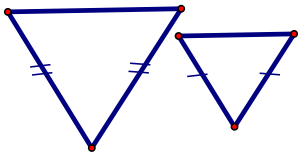
9. Which of the following would be the criterion for establishing similarity in the two triangles?



A) AA~ B) SAS~

C) SSS~ D) Not enough info or not similar

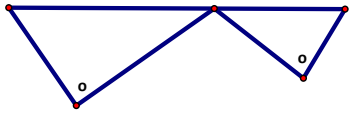
10. Which of the following would be the criterion for establishing similarity in the two triangles?



A) AA~ B) SAS~

C) SSS~ D) Not enough info or not similar

11. Which of the following would be the criterion for establishing similarity in the two triangles?

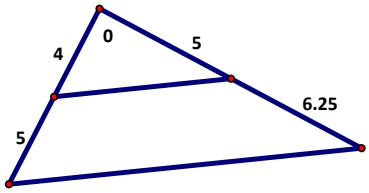


A) AA~ B) SAS~

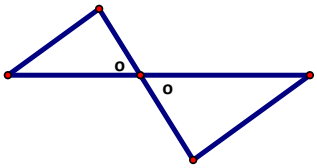
C) SSS~ D) Not enough info or not similar

12. Are the following pairs of triangles similar? If they are, then name their similarity criteria. (SSS~, SAS~, AA~)

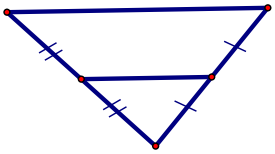
a) Yes / No _____



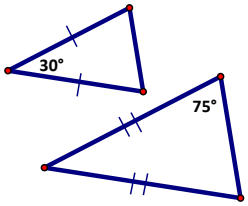
b) Yes / No _____



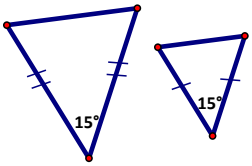
c) Yes / No _____



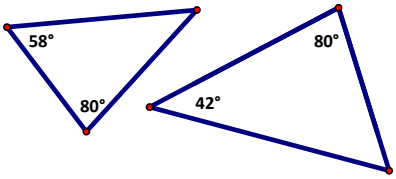
d) Yes / No _____



e) Yes / No _____



f) Yes / No _____



13. Determine the point.

a) $D_{H,4}(B)=(\_\_\_\_\_)$ b) $D_{H,3}(H)=(\_\_\_\_\_)$ c) $D_{H,-2}(G)=(\_\_\_\_\_)$

d) $D_{H,-\frac{1}{3}}(E)=(\_\_\_\_\_)$ e) $D_{F,2}(\_\_\_\_\_)=(H)$ f) $D_{C,\frac{1}{2}}(\_\_\_\_\_)=(F)$

g) $D_{D,3}(\_\_\_\_)=(E)$ h) $D_{D,\frac{3}{2}}(G)=(\_\_\_\_)$ i) $D_{G,\frac{2}{3}}(O)=(\_\_\_\_\_)$

14. Graph the following dilations:

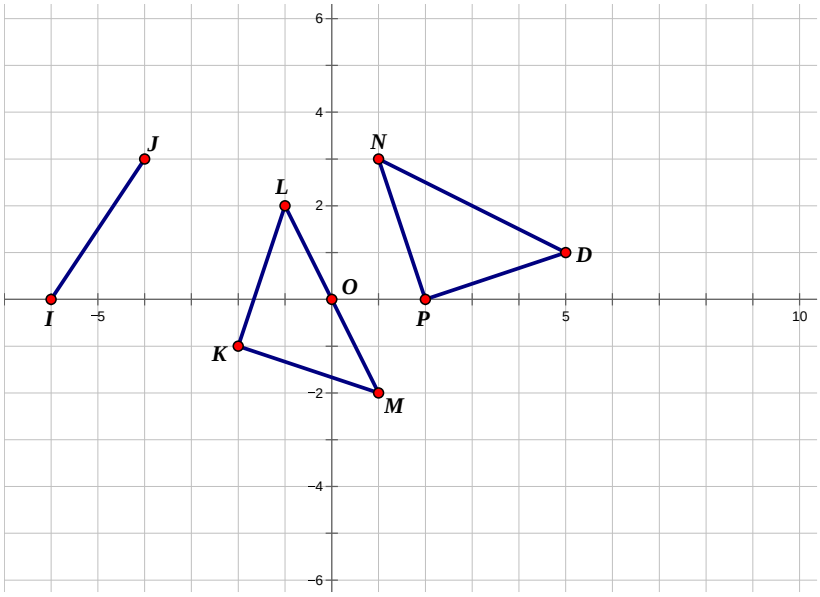
a) $D_{O,\frac{1}{2}}(\overline{IJ})$

b) $D_{O,3}(\Delta LMK)$

c) $D_{P,2}(\Delta PND)$ (notice the center location)

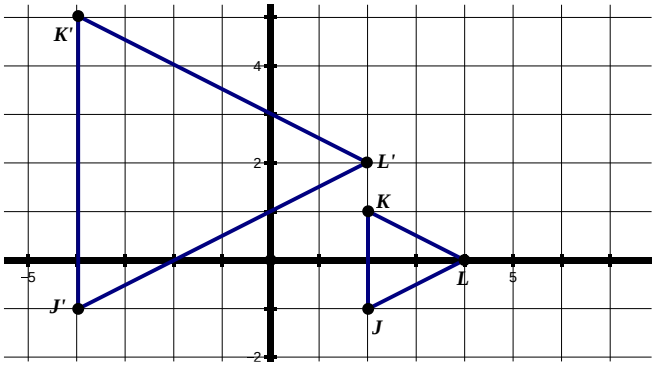
d) $D_{O,-1}(\overline{IJ})$

e) $D_{M,-2}(K)$ (notice the center location)

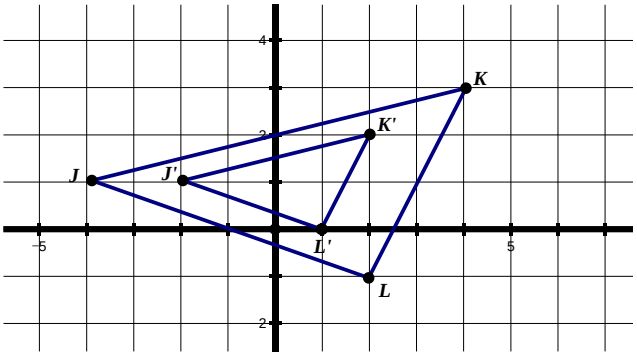


15. Work backwards to find the center of dilation, and also determine the scale factor.

a) Center (_____ , _____) Scale Factor = _____



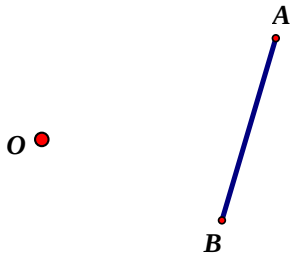
b) Center (_____ , _____) Scale Factor = _____



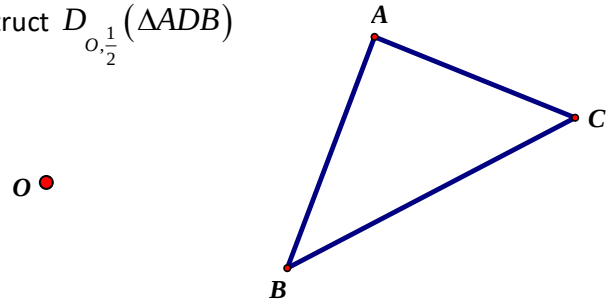
16. Dilate the following. (O is the origin).

a) $D_{O,2}(2,-1) = (\_\_\_\_, \_\_\_\_)$ b) $D_{O,-3}(-2,4) = (\_\_\_\_, \_\_\_\_)$ c) $D_{O,-3}(\_\_\_\_, \_\_\_\_) = (12,-21)$

17. Use a compass and a straightedge to construct $D_{O,2}\left(\overline{AB}\right)$



18. Use a compass and a straightedge to construct $D_{O,\frac{1}{2}}\left(\Delta ADB\right)$

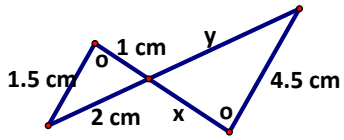


19. Given that $\Delta NHG \sim \Delta JKL$. Complete the following.

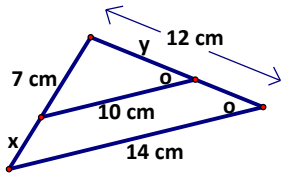
a) $\angle G \cong \angle$ _____ b) $\frac{KL}{HG} = \frac{JK}{\square}$ _____ c) $\angle J \cong \angle$ _____ d) $\frac{\square}{NG} = \frac{KL}{HG}$ _____

20. Solve for the missing information, given that the two triangles in each question are SIMILAR. (2 decimals)

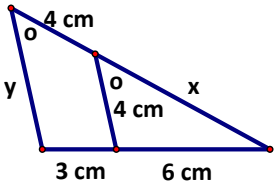
a)



b)



c)

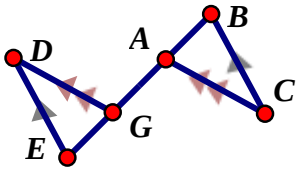


x = _____ y = _____ x = _____ y = _____ x = _____ y = _____

21. The area of a rectangle is 504 cm^2. If the length and the width are in a ratio of 7:2. Find the length and width.

22. a) GIVEN:

$\overline{DE} \| \overline{CB}$ & $\overline{DG} \| \overline{CA}$

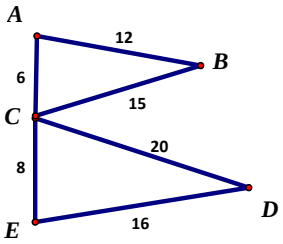


PROVE:

$\Delta EDG \sim \Delta BCA$

STATEMENT	REASON

b) GIVEN: Diagram as Marked



PROVE:

$\angle B \cong \angle D$

STATEMENT	REASON