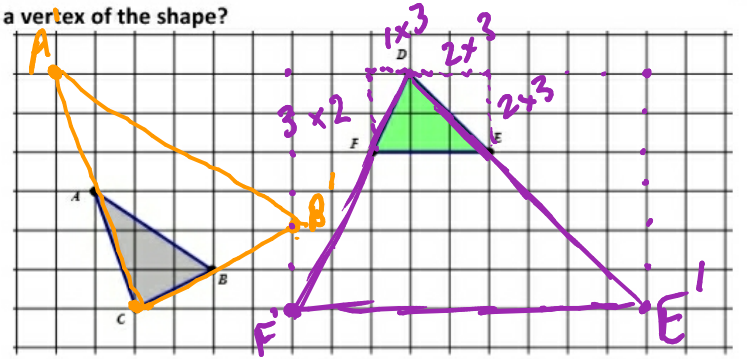
1. What happens when the center of dilation is a vertex of the shape?

a) Dilate ΔABC from C using a scale factor of 2

$D_{C,2}(\Delta ABC)$

b) Dilate ΔDEF from D using a scale factor of 3

$D_{D,3}(\Delta DEF)$



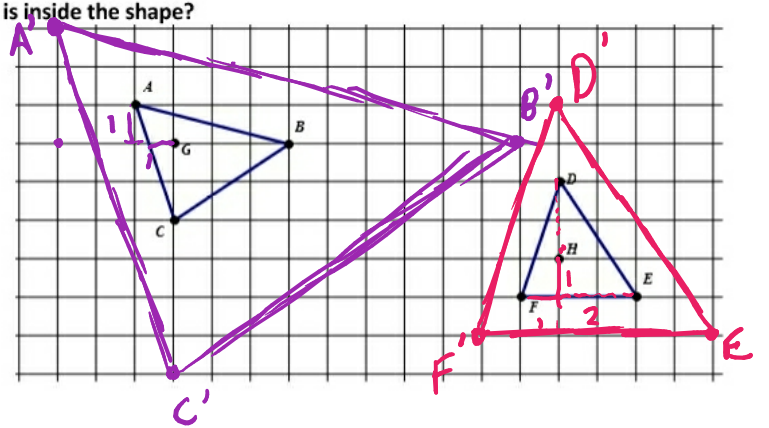
2. What happens when the center of dilation is inside the shape?

a) Dilate ΔABC from G using a scale factor of 3

$D_{G,3}(\Delta ABC)$

b) Dilate ΔDEF from H using a scale factor of 2

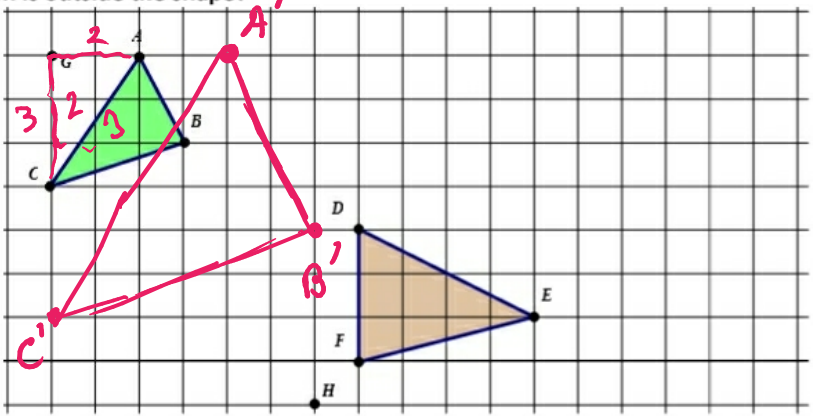
$D_{H,2}(\Delta DEF)$



3. What happens when the center of dilation is outside the shape?

a) Dilate ΔABC from G using a scale factor of 2

$D_{G,2}(\Delta ABC)$



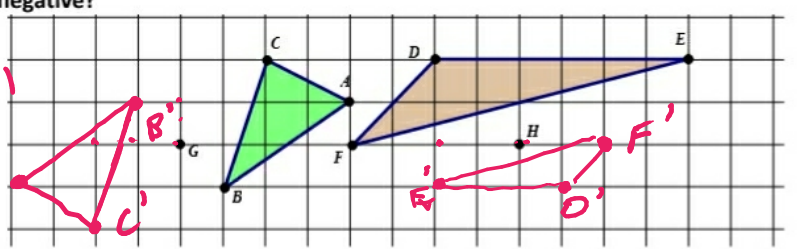
b) Dilate ΔDEF from H using a scale factor of 2

$D_{H,2}(\Delta DEF)$

4. What happens when the scale factor is negative?

a) Dilate ΔABC from G using a scale factor of -1

$D_{G,-1}(\Delta ABC)$



b) Dilate ΔDEF from H using a scale factor of -½

$D_{H,-\frac{1}{2}}(\Delta DEF)$

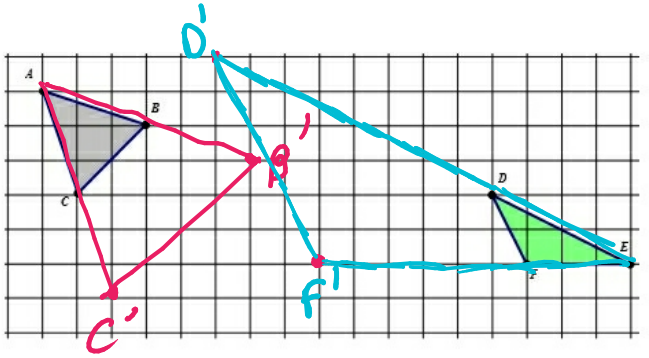
Q1

c) Dilate ΔABC from A using a scale factor of 2

$D_{A,2}(\Delta ABC)$

d) Dilate ΔDEF from E using a scale factor of 3

$D_{E,3}(\Delta DEF)$



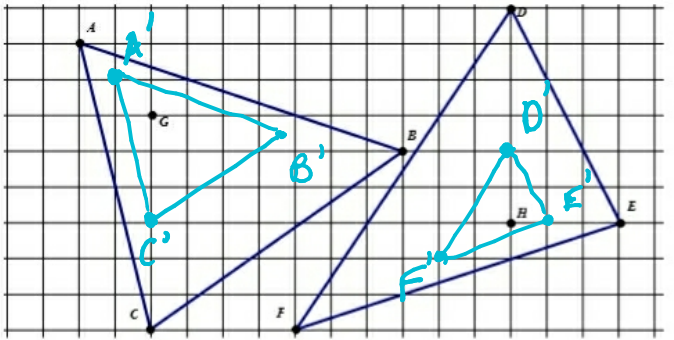
Q2

c) Dilate ΔABC from G using a scale factor of ½

$D_{G,\frac{1}{2}}(\Delta ABC)$

d) Dilate ΔDEF from H using a scale factor of $\frac{1}{3}$

$D_{H,\frac{1}{3}}(\Delta DEF)$



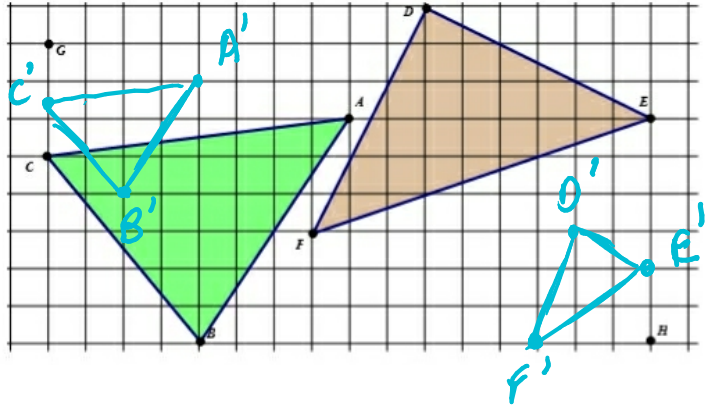
Q3

c) Dilate ΔABC from G using a scale factor of ½

$D_{G,\frac{1}{2}}(\Delta ABC)$

d) Dilate ΔDEF from H using a scale factor of $\frac{1}{3}$

$D_{H,\frac{1}{3}}(\Delta DEF)$



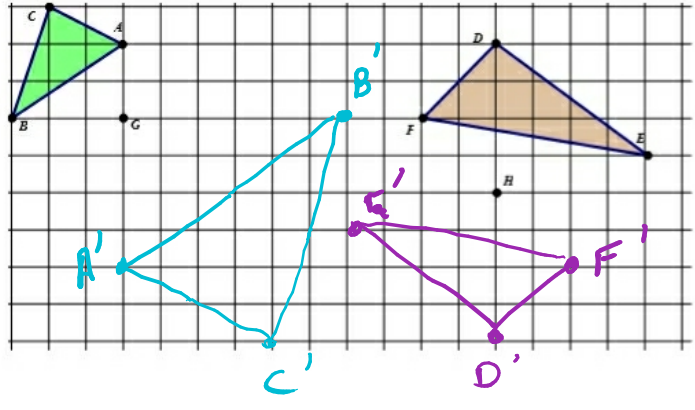
Q4

c) Dilate ΔABC from G using a scale factor of-2

$D_{G,-2}(\Delta ABC)$

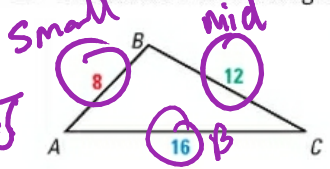
d) Dilate ΔDEF from H using a scale factor of -1

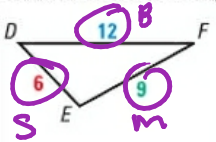
$D_{H,-1}(\Delta DEF)$

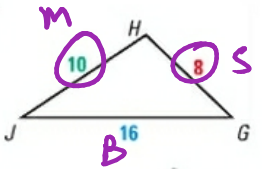


$\frac{8}{8} = \frac{12}{10}$

1. Determine which triangle is similar to ABC using SSS similarity







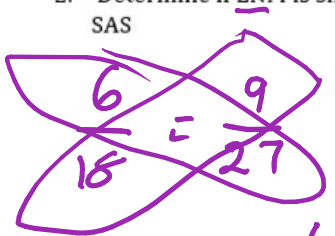
ABC ~ GHJ

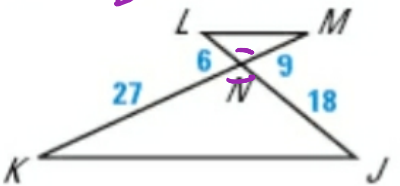
S M L

$\frac{8}{6}$ $\frac{12}{9}$ $\frac{16}{12}$

$\triangle ABC \sim \triangle DEF$

2. Determine if LNM is similar to JNK using SAS





~ by SAS

$162 = 162$ ✓

or

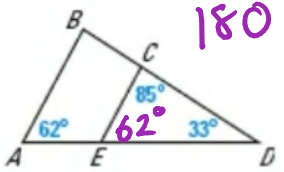
$0.3\overline{3}$ and $0.3\overline{3}$

3. Explain Why BA is parallel to CE using similarity

$\angle CED = 62^\circ \cong \angle BAE$

Corresponding $\cong$ $\angle$'s

= // lines



180 - 33 - 85

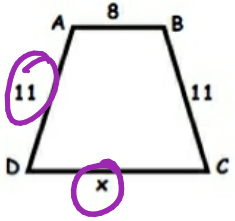
4. ABCD is similar to GHIJ

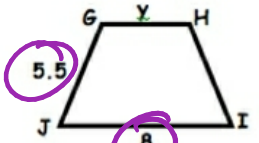
Determine the measure of

X: 16

Y: 4

$5.5x = 88$





$\frac{y}{8} = \frac{5.5}{11}$

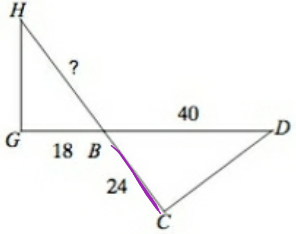
$\frac{44}{11} = \frac{11y}{11}$

$4 = y$

$\frac{x}{16} = \frac{11}{5.5}$

5. Solve for the unknown in the similar triangles given

$\triangle BCD \sim \triangle BGH$

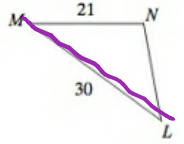


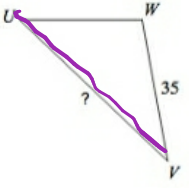
$\frac{24}{18} = \frac{40}{?}$

$24? = 720$

$? = 30$

$\triangle UVW \sim \triangle LMN$





$\frac{30}{?} = \frac{21}{35}$

$1050 = 21y$

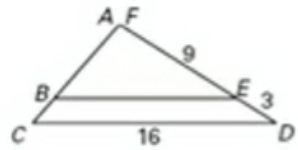
$y = 50$

6. Determine the measure of BE

$\frac{9}{x} = \frac{12}{16}$

$12x = 135$

$x = 11.25$



7. Determine the measure of BC

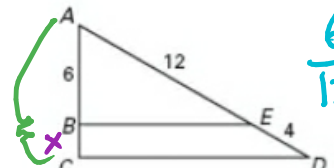
$\frac{6}{12} = \frac{y}{16}$

$\frac{96}{12} = \frac{12y}{12}$

$8 = y$

$8 - 6$

$\therefore x = 2$

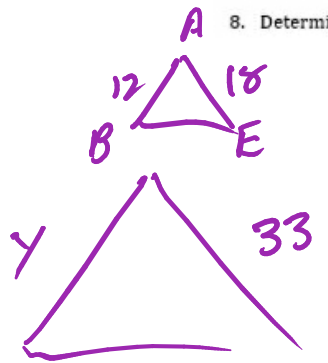


$\frac{6}{12} = \frac{x}{4}$

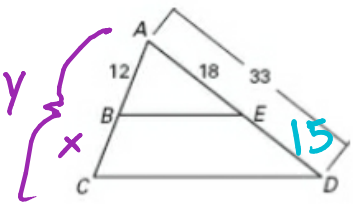
$\frac{24}{12} = \frac{12x}{12}$

$2 = x$

8. Determine the measure of BC



$\frac{12}{y} = \frac{18}{33}$



$396 = 18y$

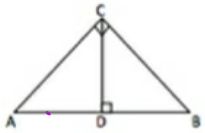
$y = 22$

$22 - 12 = x$

$x = 10$

Mean Proportions

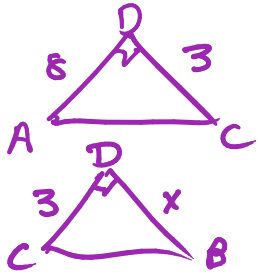
1.



$AD=8$

$CD=3$

Find DB

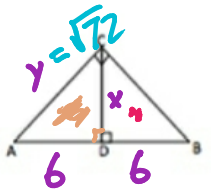


$\frac{8}{3}=\frac{3}{x}$

$\frac{8x}{8}=\frac{9}{8}$

$x=9/8$

3.



$AD=6$

$DB=6$

Find CD, AC

$\frac{y}{6}=\frac{12}{y}$

$y^2=72$

$y=\sqrt{72}$

$\frac{x}{6}=\frac{6}{x}$

$x^2=36$

$x=6$