

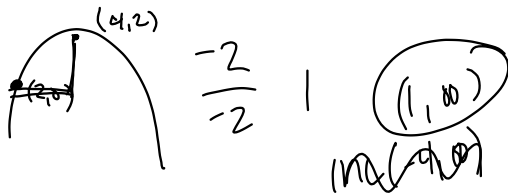
10.1 Dilation Quiz

(20) max

$(4, 2)$	$(2, 0)$	$(6, 0)$	Y_2	Y_1	
			$0 - 2$	-2	-2
			$2 - 4$	-2	-2
			X_2	X_1	$\boxed{1}$

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10.2 Triangle Similarity (G.SRT.2)

Two figures are similar if and only if there is a dilation that maps one figure onto the other. In the new figure, corresponding angles are congruent and corresponding sides are proportional to the original figure. You can denote that two figures are similar by using the symbol \sim . For example, $\triangle ABC \sim \triangle DEF$, is a similarity statement, where the two triangles are named in order of their corresponding parts.

$\frac{AB}{PR}$	$=$	$\frac{BC}{RQ}$	$=$	$\frac{AC}{PQ}$
$\frac{4}{8}$		$\frac{3}{6}$		$\frac{5}{10}$
$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$

Similarity Statement
 $\triangle ABC \sim \triangle PQR$

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Ex 1.

Similar YES AA

$\triangle ABE \sim \triangle CDE$

AA
 SAS
 SSS

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Ex 2.

$\frac{AB}{DE}$	$=$	$\frac{5}{10}$	$=$	$\frac{12}{24}$	\checkmark
$\frac{12}{20}$		$\frac{5}{10}$		$\frac{12}{24}$	

YES SSS

~~AA~~
~~SAS~~
 SSS

$\triangle ABC \sim \triangle DEF$
 $\triangle CAB \sim \triangle FDE$

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EX.3.

$A=A$ ✓
 $\frac{12}{36} = \frac{15}{45}$ ✓
 Yes SAS
 $\triangle STW \sim \triangle XYZ$

~~AA~~
~~SAS~~
~~SSS~~

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Solve for x. The triangles in each pair are similar. Write a similarity statement.

DI

$\triangle ABC \sim \triangle DEF$

$\frac{AB}{DE} = \frac{AC}{DF} = \frac{BC}{EF}$
 $\frac{4}{x+2} = \frac{3}{6}$

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$\frac{4}{x+2} = \frac{3}{6}$
 $3(x+2) = 24$
 $3x+6 = 24$
 $-6 \quad -6$
 $3x = 18$
 $\frac{3}{3} \quad \frac{3}{3}$
 $x = 6$

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$\frac{\text{Small } \triangle}{\text{Big } \triangle} = \frac{\text{Small } \triangle}{\text{Big } \triangle}$

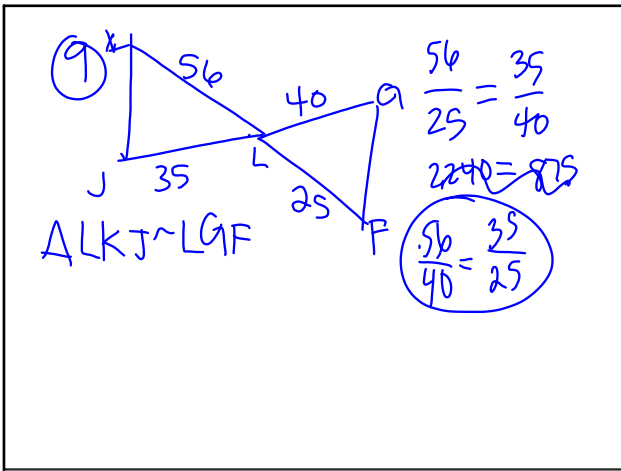
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$\frac{20}{30} = \frac{20}{29}$

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$\frac{33}{23} = \frac{33}{22} = \frac{21}{13}$

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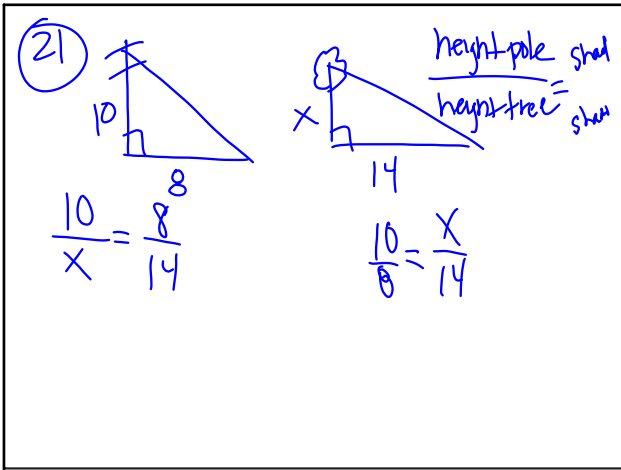
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$\frac{20}{x} = \frac{18}{9}$

$\frac{18x}{18} = \frac{180}{18}$

$x = 10$

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