NAME Key DATE _____ Pd ____

Ch. 8 Test Review CYU:
SIMILAR POLYGONS AND RIGHT TRIANGLES

☑ *Use when you get it right all by yourself*

S *Use when you did it all by yourself, but made a silly mistake*

H *Use when you could do it alone with a little help from teacher or peer*

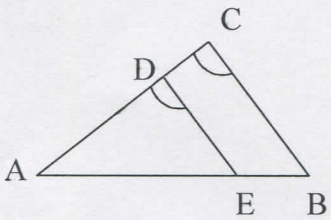
G *Use when you completed the problem in a group*

X *Use when a question was attempted but wrong (get help)*

N *Use when a question was not even attempted*

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Similar Triangles: AA~, SSS~, & SAS~	1, 4	2, 5, 19	3, 6, 12 - 15
Setting up proportions	3		
Two Transversal Proportionality	7	8	
Similar Polygons	9	17	18
Solving Similar Triangles	10	11	
Triangle Angle-Bisector Theorem	16		
Similarity Ratio or Scale Factor		19	

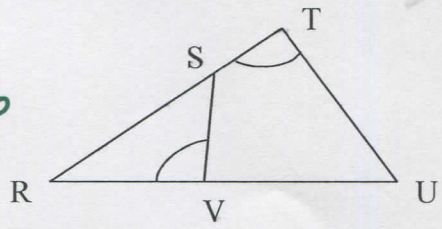
1. If AD = 14, ED = 12, BC = 15 and EB = 4, find AC, AE and AB.



AC = 17.5
AE = 16
AB = 20

2. If RS = 3, RV = 4, RT = 5 and TU = 7, then SV = _?_.

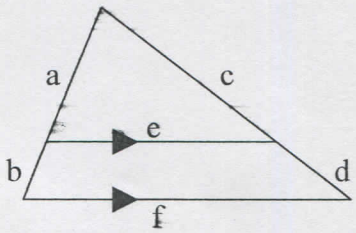
SV ≈ 5.6
= 28/5



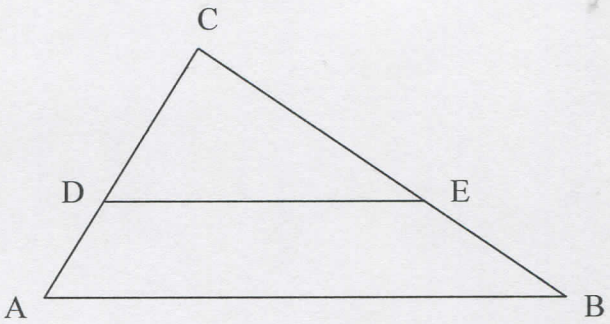
3. Circle **ALL** the proportions which are correct for the following diagram.

(a) $\frac{b}{a}=\frac{d}{c}$ (b) $\frac{a+b}{a}=\frac{c+d}{d}$ (c) $\frac{c}{c+d}=\frac{a}{b+a}$

(d) $\frac{a}{c}=\frac{b}{d}$ (e) $\frac{a}{b}=\frac{e}{f}$ (f) $\frac{c}{c+d}=\frac{e}{f}$



In #4 - 6 $\overline{DE} \parallel \overline{AB}$



4. AB = 8, EB = 4, CE = 12, DE = _?_.

DE = 6

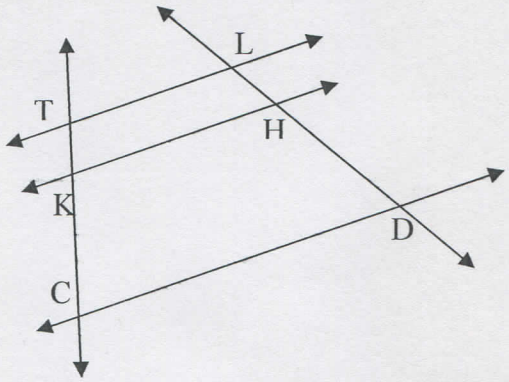
5. AC = 15, AD = 3, BC = 25, CE = _?_.

CE = 20

6. CE = 14, DE = 15, EB = 6, AB = _?_.

$AB = \frac{300}{14} \approx 21.4$

In #7 - 8 $\overline{TL} \parallel \overline{KH} \parallel \overline{CD}$.



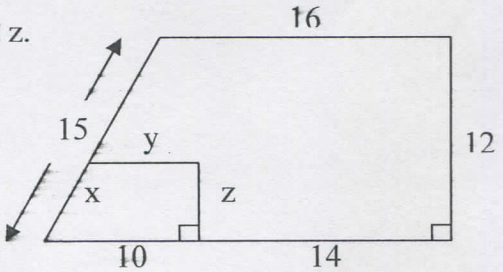
7. TK = 8, HD = 24, LD = 36, KC = _?_.

KC = 16

8. KC = 24, TK = 8, LD = 48, HD = _?_.

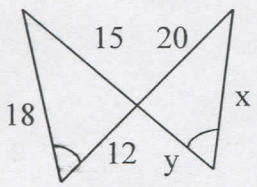
HD = 36

9. The polygons shown are similar. Find the values of x, y and z.



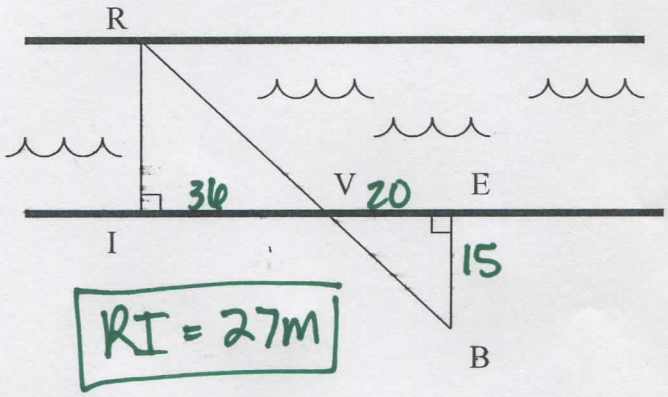
x = 6.25
y ≈ 6.667
z = 5

10. Find x and y.



X = 24
y = 16

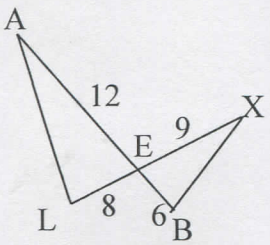
11. If IV = 36m, VE = 20m and EB = 15m, find the width of the river (RI).



RI = 27m

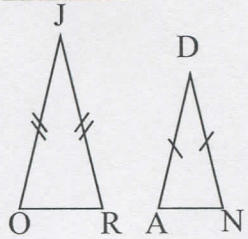
Tell which method can be used to prove the two triangles similar. If they can not be proved similar with the given information, write none. Write the similarity statement if possible.

12. SAS~

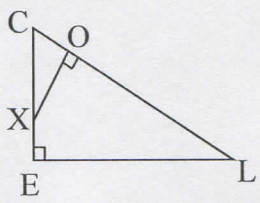


△ALE ~ △XBE

13. none

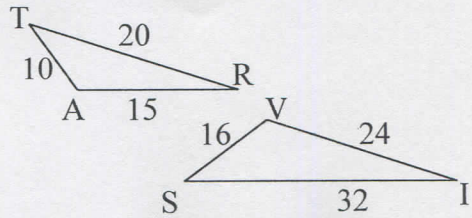


14. AA~



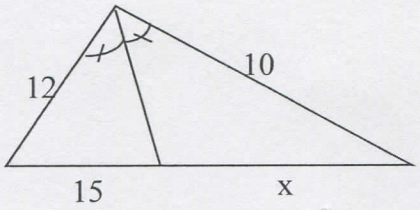
△COX ~ △CEL

15. SSS~



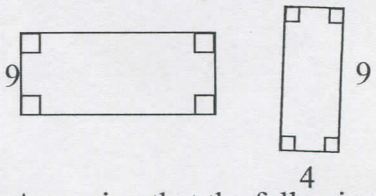
△ART ~ △VIS

16. Find x



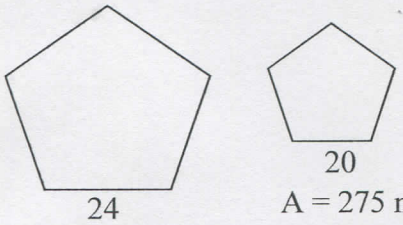
X = 12.5

17. If the following two figures are similar, what is the ratio of their areas from left to right?



$\frac{81}{16}$

18. Assuming that the following two figures are similar, what is the area of the larger figure?



$A = 275\ m^2$

$396m^2$

19. Find the side length of YZ if $\Delta ABC \sim \Delta XYZ$ and the scale factor is $\frac{5}{7}$ and A(0,0); B(14,-1); C(21,4).

$X = \frac{7\sqrt{74}}{5} \approx 12.04m$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.