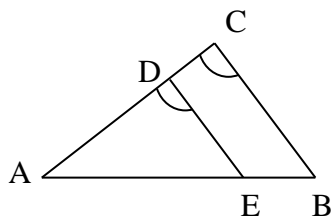


**Ch. 8 Test Review CYU:
SIMILAR POLYGONS AND RIGHT TRIANGLES**

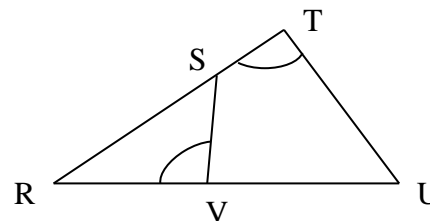
Use when you get it right all by yourself
S Use when you did it all by yourself, but made a silly mistake
H Use when you could do it alone with a little help from teacher or peer
G Use when you completed the problem in a group
X Use when a question was attempted but wrong (get help)
N Use when a question 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.

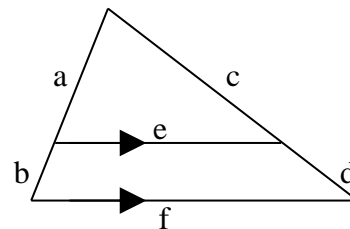


2. If RS = 3, RV = 4, RT = 5 and TU = 7, then SV = _?_.



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

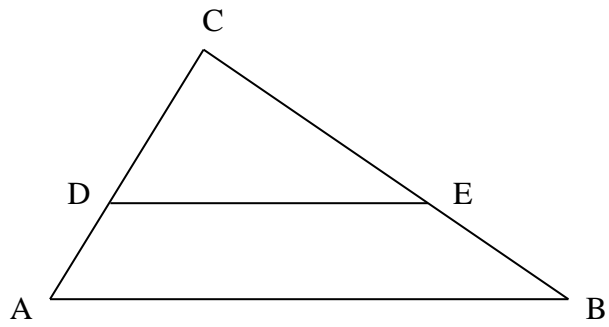


In #4 - 6 $\overline{DE} \parallel \overline{AB}$

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

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

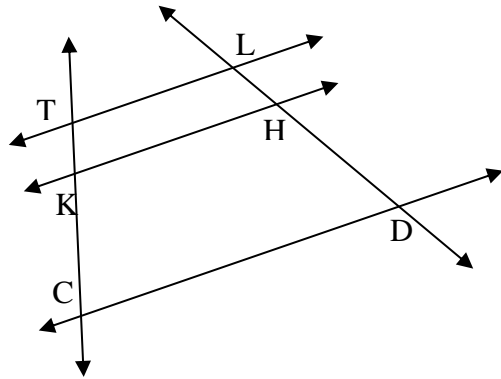
6. $CE = 14, DE = 15, EB = 6, AB = _? _.$



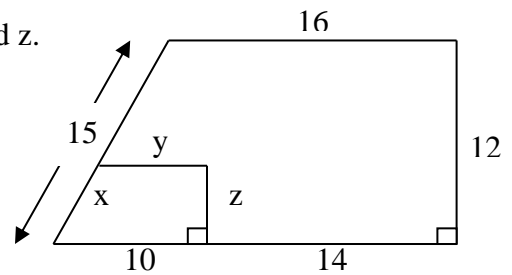
In #7 - 8 $\overline{TL} \parallel \overline{KH} \parallel \overline{CD}$.

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

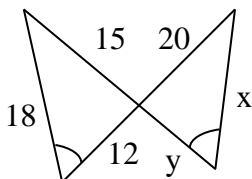
8. $KC = 24, TK = 8, LD = 48, HD = _? _.$



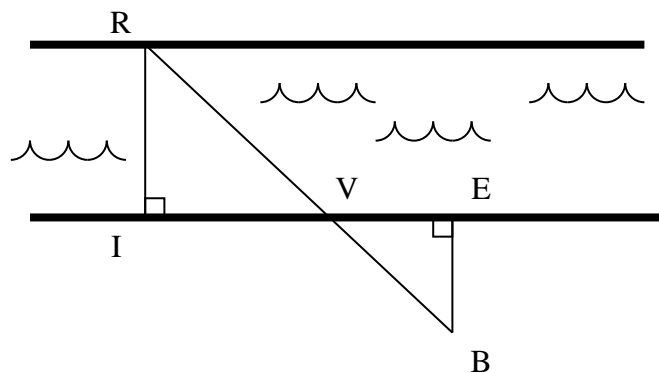
9. The polygons shown are similar. Find the values of x, y and z .



10. Find x and y .

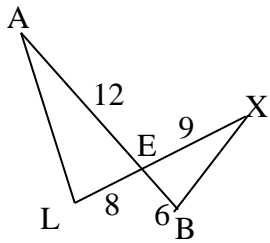


11. If $IV = 36\text{m}, VE = 20\text{m}$ and $EB = 15\text{m}$, find the width of the river (RI).

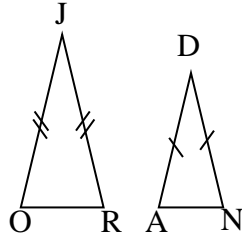


Tell which method can be used to prove the two triangles similar. If they can not be proved similar with the given information, write none. Write the similarity statement if possible.

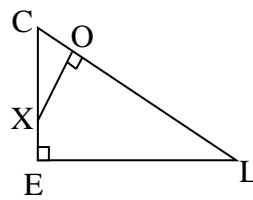
12. _____



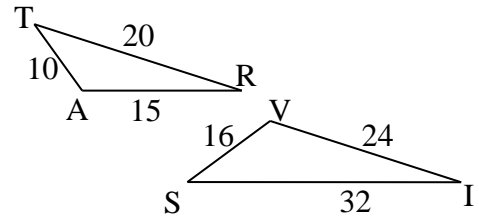
13. _____



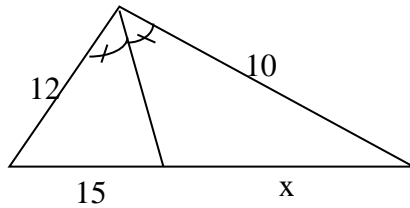
14. _____



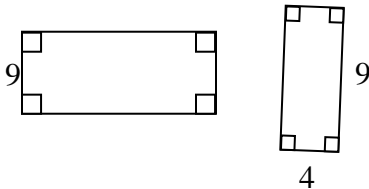
15. _____



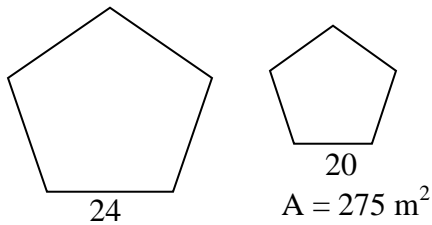
16. Find x



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



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



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

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.

● ● ● ● ● ● ●

| | | | | | | | |
|-------|---|--------------|---|---|----------|---|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Basic | | Intermediate | | | Advanced | | Solved ALL! |

