Geometry R – Mr. Bo
Unit 8 – Day 1 HW

Name: _____
Date: _____

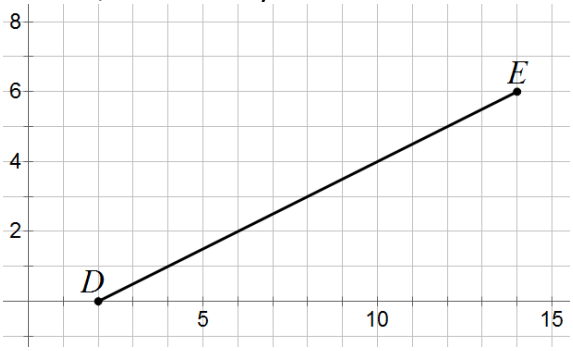
1. In parallelogram ABCD, $m\angle A : m\angle B = 5:7$. Find $m\angle A$ and $m\angle B$.

2. The sides of a triangle are in the ratio 3:4:5. If the perimeter of the triangle is 48, find the lengths of the three sides.

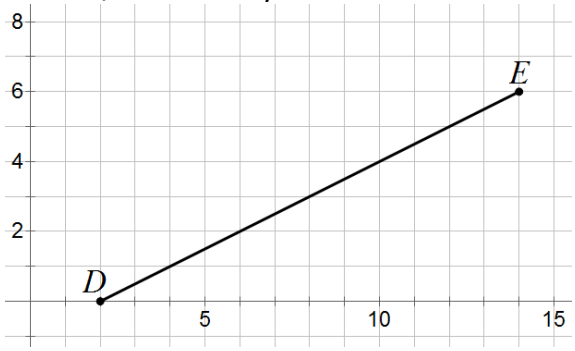
3. The angles of a pentagon are in the ratio of 9:8:6:5:2. What is the measure of the largest angle?

4. Find the point F on $\overline{DE}$ such that:

a. F is 1/4 of the way from D to E.



b. F is 2/3 of the way from D to E.



5. Solve for x in each proportion:

a. $6:11 = x:22$

b. $\frac{2}{x} = \frac{x}{32}$

c. $x+1 : x = 7:5$

6. Solve for x in each proportion:

a. $\frac{2}{x-3}=\frac{x+2}{12}$

b. $(x-4):x=6:(x-3)$

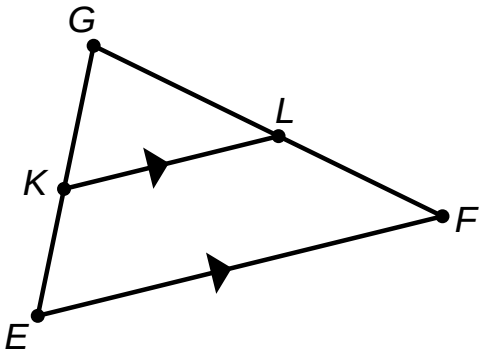
7. KL//EF. Use the "Triangle Side Splitter" Theorem to find the desired lengths in the picture.

a. KG = 10, GL = 15, LF = 8, EK = _____

b. GK = 8, GE = 10, GL = 12, GF = _____

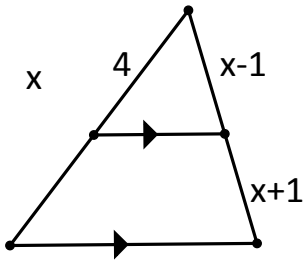
c. GK = 12, GE = 15, GF = 25, GL = _____

d. KE = 12, GL = 15, GK = 10, GF = _____

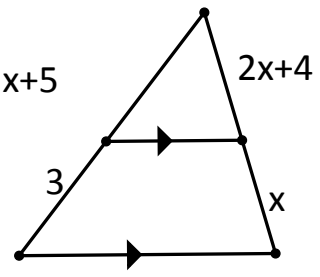


8. Solve for x in each. *(Diagrams are not to scale)*

a.



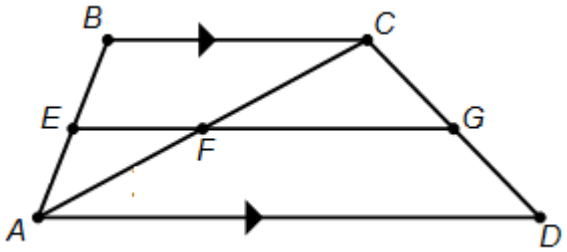
b.



9. Complete the Proof by filling in the missing reasons.

Given: $\overline{EG}$ median of Trapezoid ABCD.

Prove: F is midpoint of $\overline{AC}$



Statements	Reasons
1. $\overline{EG}$ median of Trapezoid ABCD.	1.
2. E midpoint of $\overline{AB}$	2.
3. $AE = BE$	3.
4. $\overline{EG} \,//\, \overline{BC}$	4.
5. $\frac{AE}{BE} = \frac{AF}{CF}$	5. *(Hint: Think about how statement #4 relates to ΔABC)*
6. $(AE)(CF) = (BE)(AF)$	6. *(Hint: How we say "Cross Multiply" in geometry)*
7. $(BE)(CF) = (BE)(AF)$	7. *(Hint: Don't forget about statement #3)*
8. $CF = AF$	8. *(Hint: Maybe use something from algebra)*
9. F midpoint of $\overline{AC}$	9.