NAME_____DATE_____PER._____

CHAPTER 8 REVIEW
5 points added to your test, if complete

RATIOS & PROPORTIONS WITH APPLICATIONS
Find the value of 'x' in each of the following proportions.

|	
1. $x =$ _____	$\dfrac{x}{5} = \dfrac{90}{20}$
2. $x =$ _____	$\dfrac{x}{12-x} = \dfrac{3}{1}$
3. $x =$ _____	$\dfrac{12}{15} = \dfrac{x}{45}$
4. $x =$ _____	$\dfrac{5}{x+2} = \dfrac{4}{x}$

Set up a proportion and solve. Remember units on the final answer.

5. _____	If 3 tickets to an event cost \$26.40, find the cost of 7 such tickets.
6. _____	Henry scores an average of 7 foul shots out of every 10 attempts. At the same rate, how many shots would he score in 200 attempts?
7. _____	A recipe calls for $1\frac{1}{2}$ cups of sugar for a 3-pound cake. How many cups of sugar should be used for a 5-pound cake?
8. _____	Chris can drive 41 miles for every 3 gallons of gas. At this rate, how many gallons of gas will he need to travel to his in-laws' house, 369 miles away?

SIMILAR POLYGONS
ABCD is similar to PQRS below. Answer the questions that follow.

9. _____	What is the scale factor of ABCD to PQRS?
10. _____	Find $m\angle R$.
11. _____	Find QR.
12. _____	Find the ratio of the perimeters.
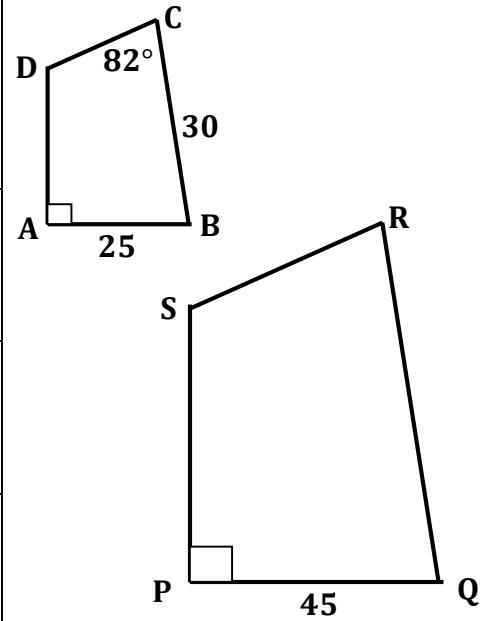
Two similar polygons are shown. Find the values of 'x' and 'y'.

13. $x =$ _____ $y =$ _____	
14. $x =$ _____ $y =$ _____	
15. $x =$ _____ $y =$ _____	

16. $x =$ _____

$y =$ _____
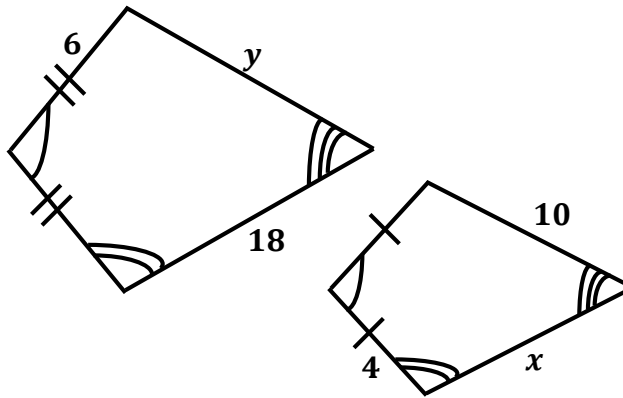
INDIRECT MEASUREMENT
Find the indicated measures. Remember units on the final answer.

17. _____

A $40\ cm$ tomato plant casts a $25\ cm$ shadow. How tall is the corn stalk if its shadow is $280\ cm$ long?
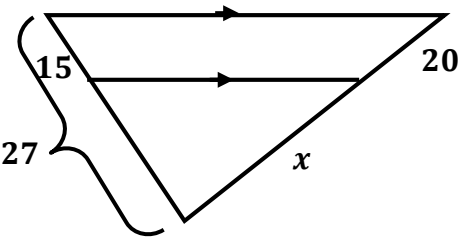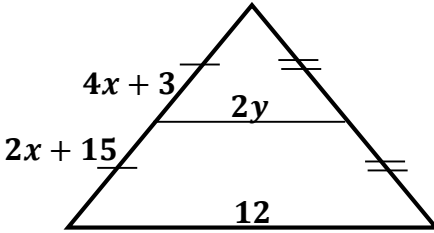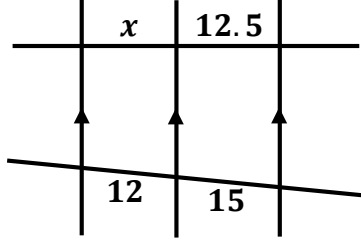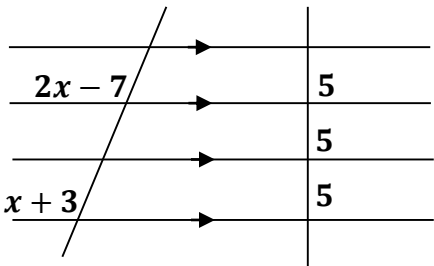
18. _____

Cristina wants to measure the height of a building. She places a mirror between herself and the building. She can see the top of the building in the mirror. If the mirror is $10\ m$ from Cristina, who is $12\ m$ tall, and $16\ m$ from the building. How tall is the building?

PROPORTIONAL SEGMENTS
Find the value(s) of 'x' (and 'y' where applicable) in each of the following.

19. $x =$ _____
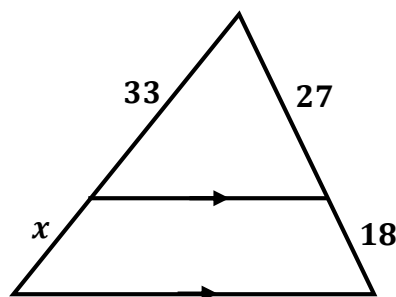
20. $x = $ _____	
21. $x = $ _____ $y = $ _____	
22. $x = $ _____	
23. $x = $ _____	

A Mishmash of Answers!

9	$\dfrac{5}{9}$	10	$\dfrac{96}{5} = 19.2$	36

10   27   82°

$\dfrac{45}{2} = 22.5$ 15/12   21/15   8 $61.60

12/15

54   448   6/3   16 $2\dfrac{1}{2}$ 140   22

29/30 $\dfrac{5}{9}$ OR $\dfrac{9}{5}$