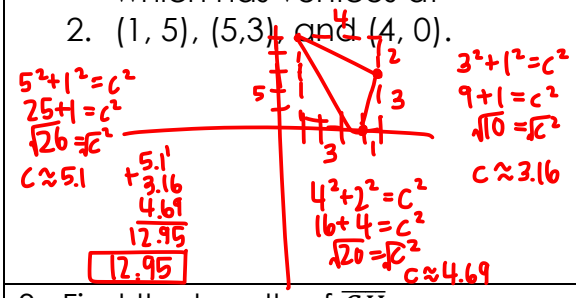
Name: KEY Date:_____ Period:_____

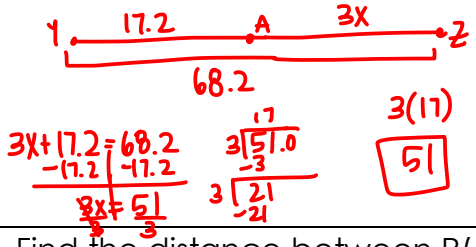
Secondary 1 Term 1 Review.

Chapter 10

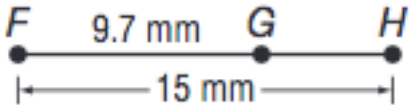
1. Find the perimeter of a figure which has vertices at
2. (1, 5), (5,3), and (4, 0).



3. Given A is between Y and Z and YA = 17.2, AZ = 3x, and YZ=68.2, find AZ.



3. Find the length of $\overline{GH}$.



4
15.0
-9.7
5.3

5.3 mm

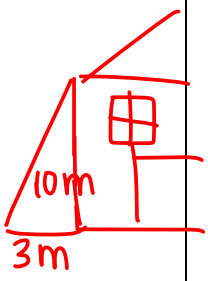
4. Find the distance between P(1,15) and Q(-2,-1).

(1,15) (-2,-1)
3 16

$3^2+16^2=c^2$
$9+256=c^2$
$\sqrt{265}=\sqrt{c^2}$
$c\approx 16.28$

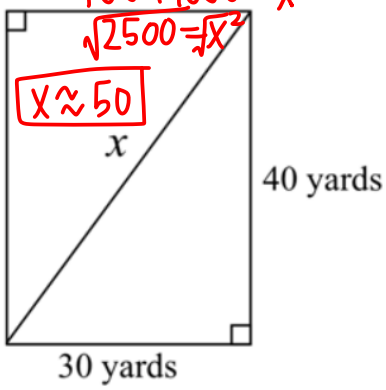
5. A ladder is leaning against the side of a 10m house. If the base of the ladder is 3m away from the house, how tall is the ladder ?

$10^2+3^2=c^2$
$100+9=c^2$
$\sqrt{109}=\sqrt{c^2}$
$c\approx 10.44$



6. Find the ***value*** of x.

$30^2+40^2=x^2$
$900+1600=x^2$
$\sqrt{2500}=\sqrt{x^2}$
$x\approx 50$



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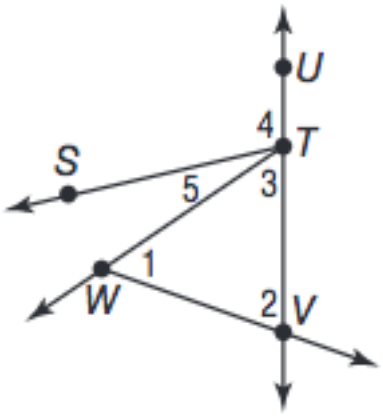
USE FIGURE FOR 7-12



7. Name the vertex for $\angle 4, \angle 2, \angle 1, and\ \angle 5$?

$\angle 4 : T$
$\angle 2 : V$
$\angle 1 : W$
$\angle 5 : T$

8. Find the $\angle 1$ if the sum of $\angle 3\ and\ \angle 2$ is 135.

$\angle W = 135$
$180 - 135 = 45$

$m\angle 1 = 45°$

9. List the angles that create a straight line.

$\angle UTS, \angle STW, \angle WTV$

10. If $m\angle 3$ is 65 and $m\angle 5$ is 25, what is $m\angle 4$?

$65 + 25 = 90$

$180 - 90 = 90°$

$m\angle 4 = 90°$

11. Find $m\angle WVT = 2x + 12$ what is the value of x

$45 + 65 = 110$

$2x + 12 = 110$
$-12 \quad -12$
$2x = 98$
$\frac{2x}{2} = \frac{98}{2}$
$x = 49$

$x = 49$

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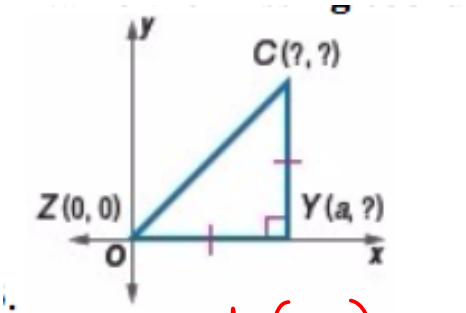
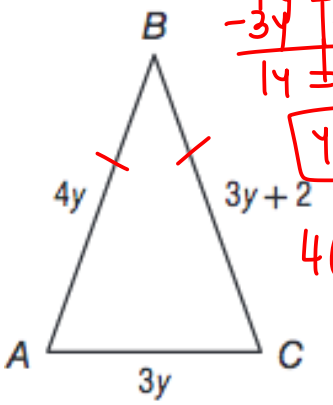
Chapter 12

12. Find the coordinate of C



Y (a,a)

13. Find y and the length of each side if ΔABC is isosceles with AB=BC



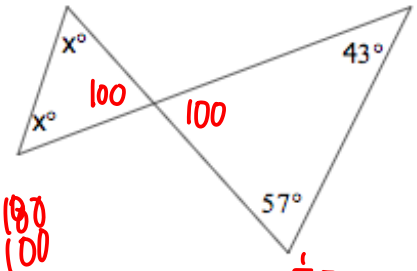
4y = 3y + 2
-3y -3y
y = 2
4(2)
8

14. What is the area of ΔABC with vertices A(0, 2), B(1,-3), and C(-1, -3)?

15. If $\Delta CAT \cong \Delta DOG$, which segment in ΔDOG corresponds with $\overline{AT}$

$\overline{OG}$

16. What is the value of x?



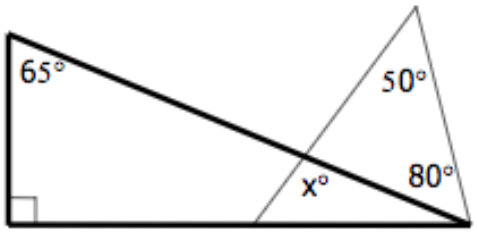
180 - 100 = 80

80 ÷ 2 = 40

57 + 43 = 100

X = 40°

17. What is x?



50 + 80 = 130

X = 130°

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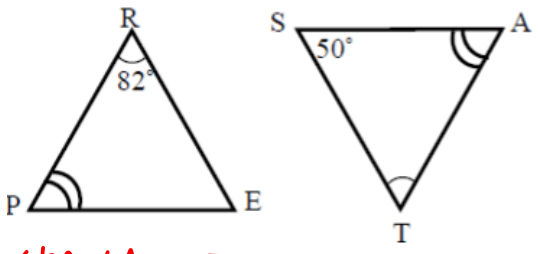
18. Which congruence statements for the given triangles?



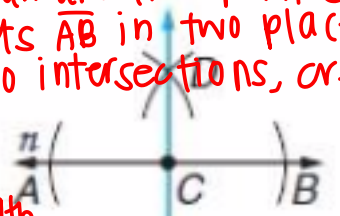
$\angle P \cong \angle A$ $\overline{RE} \cong \overline{TS}$
$\angle R \cong \angle T$ $\overline{EP} \cong \overline{SA}$
$\angle E \cong \angle S$
$\overline{PR} \cong \overline{AT}$ $\triangle PRE \cong \triangle ATS$

19. Triangle XYZ has vertices X(-10, 12), Y(-7, 5) and Z(-4, -3). What are the coordinates of the image of ΔXYZ after a translation (x -5, Y+4).

X'(-15,16)
Y'(-12,9)
Z'(-9,1)

20. Describe the steps that makes this construction.

Create an arc from point C that intersects $\overline{AB}$ in two places. From those two intersections, create an arc of the same length. Where those intersect, create a point. Draw a line between that intersection and point C.



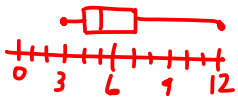
21. Triangle ABC has vertices A(3, -2), B(3, 5), and C(5,0). What are the coordinates of the image after a rotation of 90 degrees clockwise around the origin?

$(x,y) \rightarrow (y,-x)$
A'(-2,3), B'(5,3), C'(0,5)

Chapter 9

22. The number of fruits and vegetables Sue has eaten over the past two weeks: 9, 4, 4, 6, 12, 7, 6, 5, 4, 3, 5, 1, 4, 3.
Describes the distribution of this data?

positively skewed



23. What is the outlier for:
71, 71, 59, 69, 72, 25, 69, 73, 77

51+69=120÷2=64 72+73=145÷2=72.5
25, 59, 69, 69, 71, 71, 72, 73, 77

Q1 − 1.5(IQR) 64 − 1.5(8.5)
Q3 + 1.5(IQR) 72.5 + 1.5(8.5)
Outlier: 25
Range: 51.25 85.25
IQR: Q3 − Q1 = 72.5 − 64 = 8.5

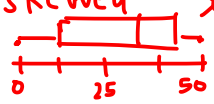
24. Find the standard deviation of $\{7, 1, 9, 9, 12, 25, 9, 7, 7\}$.

σx: 6.502
6.130

25. Which given statistics best describe the center and spread of the following data?

0, 45, 23, 3, 37, 43, 32, 50
0, 3, 23, 32, 37, 43, 45, 50

skewed



13 34.5 44
Median: 34.5
IQR: 31

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26. The earnings from mowing lawns are given below. If I ask clients for 5.00 more for each lawn, what does that do to the mean, median, mode, range and standard deviation?

$22.80, $24.80, $39.99, $36.00, $27.95

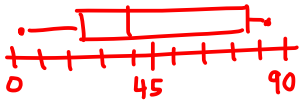
Mean: 35.308 Median: 32.95 Mode: none Range: 17.19 SD: 7.39 6.61

27. Construct a box and whisker for the data, and use it to describe the shape of the distribution.

3, 34, 45, 78, 78, 83, 54, 22, 30, 25

22, 25, 30, 34, 45, 54, 78, 78, 83

39.5



FORMULAS AS REFERENCE:

Pythagorean Theorem:

$$a^2 + b^2 = C^2$$

Distance Formula:

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Side Angle Theorems:

$$AAS, SAS, ASA, SSS, HL$$

Translations:

$$(x, y) \rightarrow (x + a, y + b)$$

Reflections:

$$y: (x, y) \rightarrow (-x, y)$$
$$x: (x, y) \rightarrow (x, -y)$$

Rotations:

$$90°C: (x, y) \rightarrow (y, -x)$$
$$90°CC: (x, y) \rightarrow (-y, x)$$
$$180°C: (x, y) \rightarrow (-x, -y)$$

Outlier Test: $T = 1.5(IQR)$

$$LB: Q_1 - T, UB: Q_3 + T$$

Area of a Triangle: $A = \frac{bh}{2}$