Ms. Mougharbel Name_____

Geometry - PRACTICE Final Exam Fall 2019

Date_____ Period____

Solve each equation.

1) $-1 = -3m + 3 + 4m$

2) $-5(k + 8) + 4 = -7k - 26$

Simplify.

3) $\sqrt{75}$

4) $6\sqrt{500}$

5) $3\sqrt{8} - 5\sqrt{8}$

6) $-3\sqrt{12} + 3\sqrt{24} + 3\sqrt{12}$

7) $\sqrt{2} \cdot \sqrt{25}$

8) $3\sqrt{5}(4 + \sqrt{5})$

9) $\dfrac{5\sqrt{15}}{\sqrt{5}}$

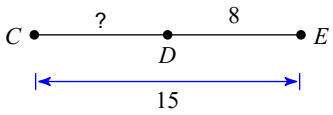
10) $\dfrac{4\sqrt{12}}{6\sqrt{14}}$

Use a ruler to measure the length of each line segment. Measure each segment in millimeters. Round your measurements to the nearest millimeter. Also state the maximum error and maximum percent of error in each measurement.

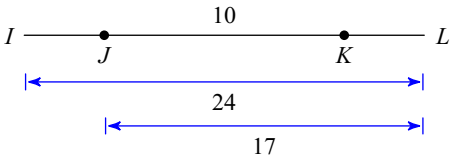
11)

Find the length indicated.

12)

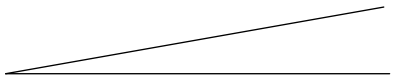


13) Find IK

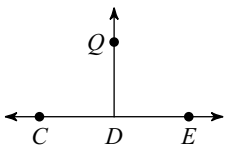


Find the measure of each angle to the nearest degree.

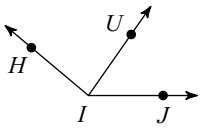
14)



15) $m\angle QDE = 90°$ and $m\angle CDQ = 90°$. Find $m\angle CDE$.

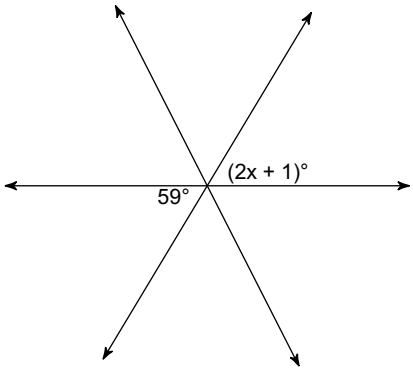


16) $m\angle HIJ = 23x + 2$, $m\angle HIU = 85°$, and $m\angle UIJ = 10x - 5$. Find x.



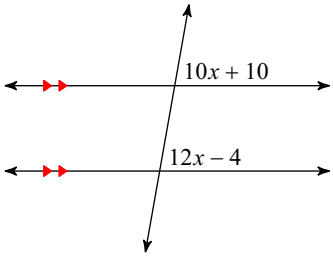
Find the value of x.

17)



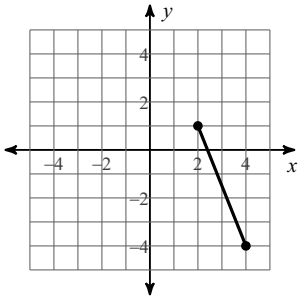
Solve for *x*.

18)



Find the midpoint of each line segment.

19)

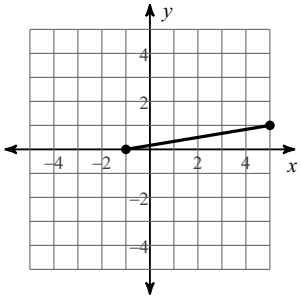


Find the midpoint of the line segment with the given endpoints.

20) $(-3.7, 8.2)$, $(7.9, -7)$

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

21)

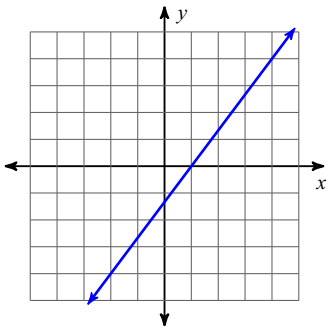


22) $(-4.7, -1.9)$, $(3.1, -8)$

Find the slope of each line.

23) $y = \frac{3}{4}x - 2$

24)



Write the slope-intercept form of the equation of each line given the slope and y-intercept.

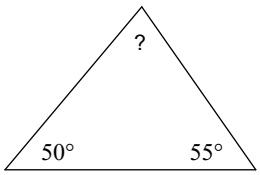
25) Slope $= -\frac{2}{5}$, y-intercept = 1

Write the slope-intercept form of the equation of the line through the given point with the given slope.

26) through: $(1, 3)$, slope = 2

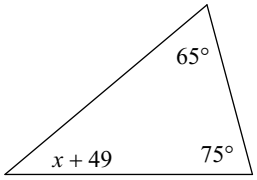
Find the measure of each angle indicated.

27)



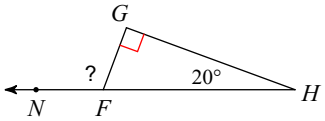
Solve for *x*.

28)



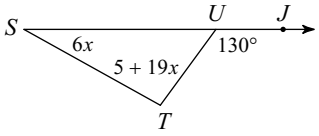
Find the measure of each angle indicated.

29)



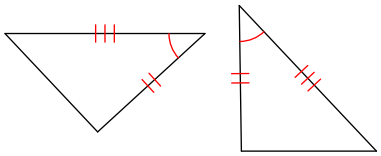
Solve for *x*.

30)

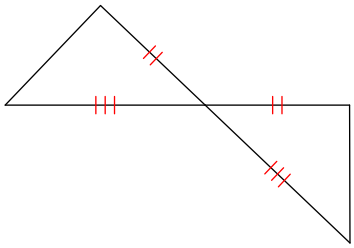


Determine if the two triangles are congruent. If they are, state how you know.

31)

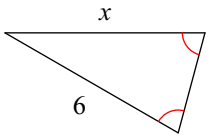


32)

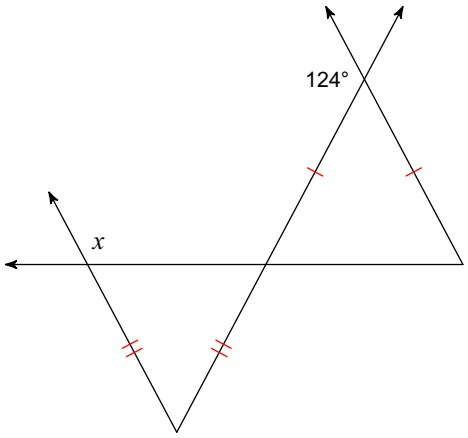


Find the value of *x*.

33)

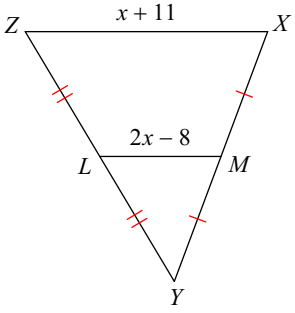


34)



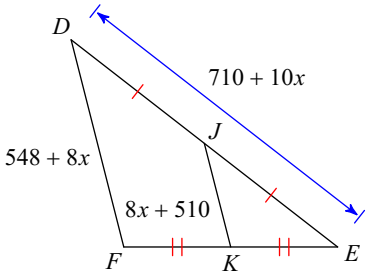
Solve for *x*.

35)



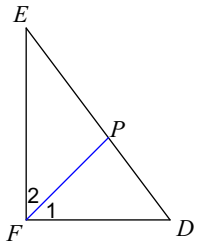
Find the missing length indicated.

36) Find *DF*

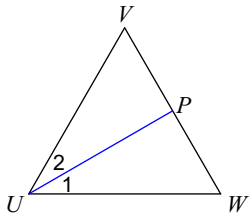


Each figure shows a triangle with one of its angle bisectors.

37) $m\angle 2 = 45°$. Find $m\angle DFE$.

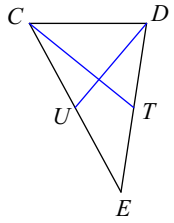


38) $m\angle 1 = 6x - 6$ and $m\angle 2 = 6 + 4x$. Find x.

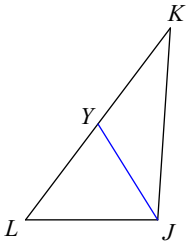


Each figure shows a triangle with one or more of its medians.

39) Find UE if $CE = 3$



40) Find x if $YL = \frac{x-1}{2}$ and $YK = \frac{2x-7}{2}$



Find the coordinates of the centroid of each triangle given the three vertices.

41) $W(-6, 1)$, $X(-7, 7)$, $Y(10, 7)$

State if the three numbers can be the measures of the sides of a triangle.

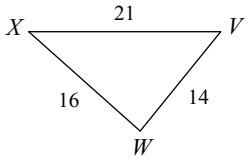
42) 9, 6, 12

Two sides of a triangle have the following measures. Find the range of possible measures for the third side.

43) 7, 6

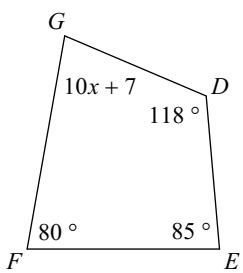
Name the largest and smallest angle in each triangle.

44)



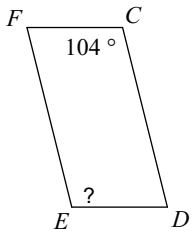
Solve for *x*.

45)



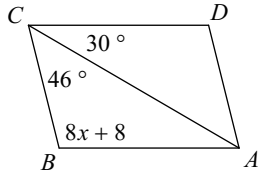
Find the measurement indicated in each parallelogram.

46)



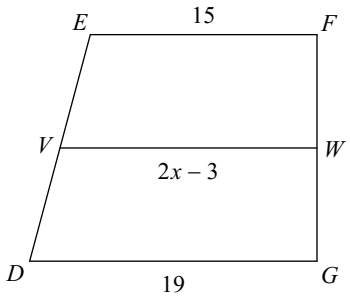
Solve for *x*. Each figure is a parallelogram.

47)



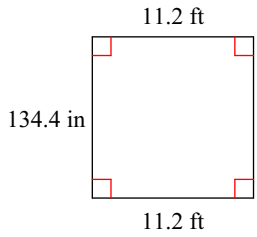
Solve for *x*. Each figure is a trapezoid.

48)



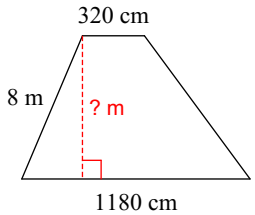
Find the area of each.

49)



Find the missing measurement. Round your answer to the nearest tenth. Take care to use the correct units.

50)



Area = 55.5 m²

Answers to Geometry - PRACTICE Final Exam Fall 2019

1) $\{-4\}$
2) $\{5\}$
3) $5\sqrt{3}$
4) $60\sqrt{5}$
5) $-4\sqrt{2}$
6) $6\sqrt{6}$
7) $5\sqrt{2}$
8) $12\sqrt{5} + 15$
9) $5\sqrt{3}$
10) $\frac{2\sqrt{42}}{21}$
11) 38 mm, 0.5 mm, 1.3%
12) 7
13) 17
14) 10°
15) 180°
16) 6
17) 29
18) 7
19) $(3, -1.5)$
20) $(2.1, 0.6)$
21) 6.1
22) 9.9
23) $\frac{3}{4}$
24) $\frac{4}{3}$
25) $y = -\frac{2}{5}x + 1$
26) $y = 2x + 1$
27) 75°
28) –9
29) 110°
30) 5
31) SAS
32) SAS
33) 6
34) 118°
35) 9
36) 76
37) 90°
38) 6
39) 1.5
40) 6
41) $(-1, 5)$
42) Yes
43) $1 < x < 13$
44) $\angle W, \angle X$
45) 7
46) 104°
47) 12
48) 10
49) 125.44 ft²
50) 7.4 m