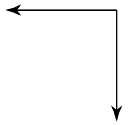
Mr. Bjerkness 2013/2014 Name_____

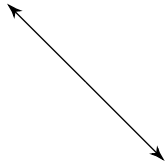
1st Semester Review - 0520 Geometry

Date_____ Period____

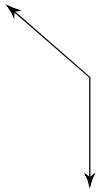
Classify each angle as acute, obtuse, right, or straight.

1) 

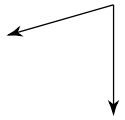
A) straight B) acute
C) obtuse D) right

2) 

A) obtuse B) straight
C) acute D) right

3) 

A) straight B) acute
C) obtuse D) right

4) 

A) acute B) obtuse
C) straight D) right

5) 180°

A) obtuse B) straight
C) acute D) right

6) 90°

A) right B) straight
C) acute D) obtuse

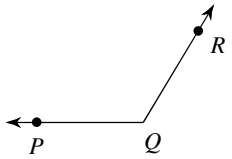
7) 174°

A) right B) obtuse
C) acute D) straight

8) 64°

A) right B) straight
C) obtuse D) acute

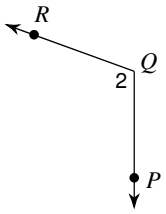
Name the vertex and sides of each angle.

9) 

A) Q, $\overrightarrow{QP}$ and $\overrightarrow{QR}$
B) Q, $\overrightarrow{QP}$ and $\overrightarrow{PR}$
C) R, $\overrightarrow{QP}$ and $\overrightarrow{QR}$
D) P, $\overrightarrow{PQ}$ and $\overrightarrow{PR}$

Name each angle in four ways.

10)

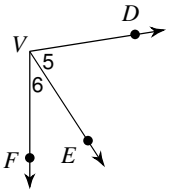


Choose the wrong name for this angle:

A) $\angle PQR$ B) $\angle Q$
C) $\angle QPR$ D) $\angle 2$

Name all the angles that have *V* as a vertex.

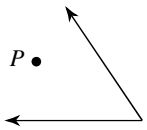
11)



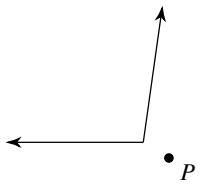
A) $\angle 5$, $\angle 6$, $\angle FED$
B) $\angle 5$, $\angle 6$, $\angle DVF$
C) $\angle 5$, $\angle 6$, $\angle EDV$
D) $\angle 5$, $\angle 6$, $\angle VFE$

State if the given point is interior, exterior, or on the angle.

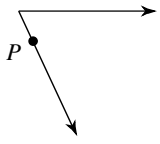
12)



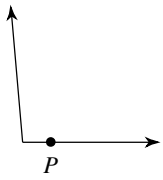
13)



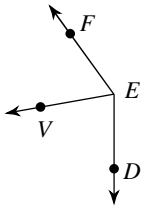
14)



15)

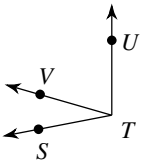


16) $m\angle DEF = 144°$ and $m\angle VEF = 64°$. Find $m\angle DEV$.



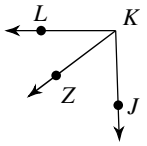
A) 93° B) 80°
C) 99° D) 100°

17) Find x if $m\angle VTU = 6x + 14$, $m\angle STV = x + 17$, and $m\angle STU = 101°$.



A) 9 B) −7
C) 2 D) 10

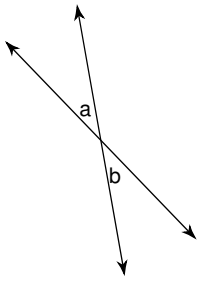
18) $m\angle ZKL = 37°$, $m\angle JKZ = 7x - 8$, and $m\angle JKL = 11x - 7$. Find $m\angle JKZ$.



A) 39° B) 56°
C) 38° D) 55°

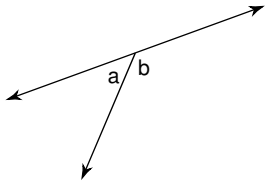
Name the relationship: complementary, linear pair, vertical, or adjacent.

19)



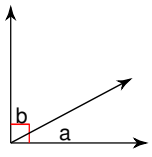
A) linear pair B) vertical
C) alternate exterior D) adjacent

20)



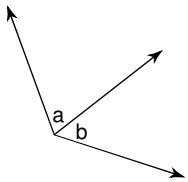
A) complementary
B) alternate exterior
C) alternate interior
D) linear pair

21)



A) alternate exterior
B) linear pair
C) vertical
D) complementary

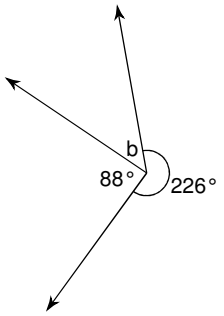
22)



A) complementary
B) linear pair
C) adjacent
D) corresponding

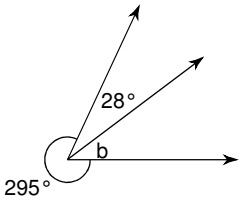
Find the measure of angle b.

23)



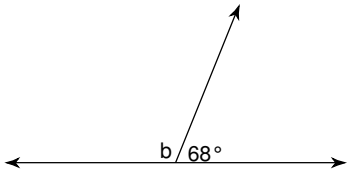
A) 44° B) 134°
C) 136° D) 46°

24)



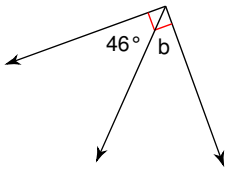
A) 96° B) 143°
C) 37° D) 53°

25)



A) 89° B) 112°
C) 22° D) 68°

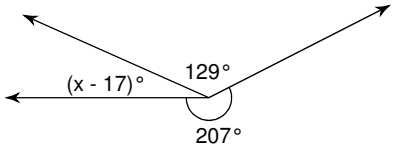
26)



A) 62° B) 44°
C) 136° D) 152°

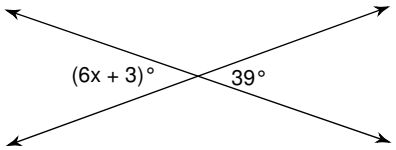
Find the value of x.

27)



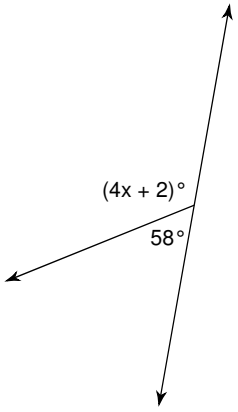
A) 41 B) 36
C) 35 D) 37

28)



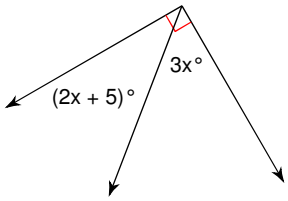
A) 6 B) 18
C) 10 D) 16

29)



A) 31 B) 36
C) 30 D) 35

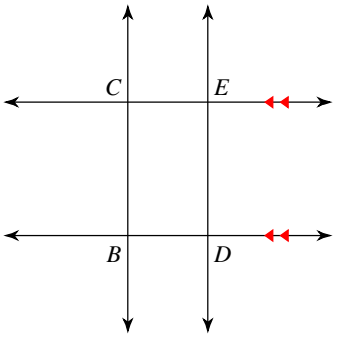
30)



A) 12 B) 11
C) 17 D) 8

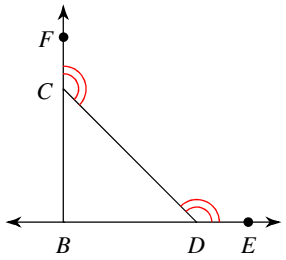
List all information given by the marks on the diagram.

31)



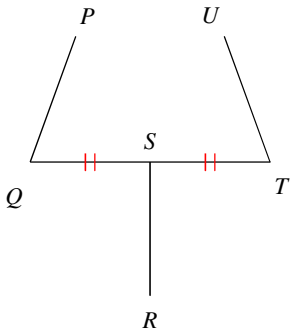
A) $\overleftrightarrow{DB} \parallel \overleftrightarrow{EC}$
B) $\angle CDB \cong \angle CBD$
C) $\overleftrightarrow{EF} \parallel \overleftrightarrow{BD}$
D) $\overline{GF} \cong \overline{BC}$

32)



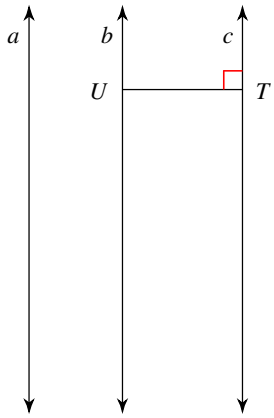
A) $\overline{EC} \cong \overline{DB}$
B) $\angle CDE \cong \angle DCF$
C) $\overleftrightarrow{EC} \parallel \overleftrightarrow{DB}$
D) $q \parallel p$

33)



A) $\angle UST \cong \angle UTS$
B) $\overline{SU} \cong \overline{RT}$
C) $\overline{TS} \cong \overline{SQ}$
D) $\overline{SR} \cong \overline{UT}$

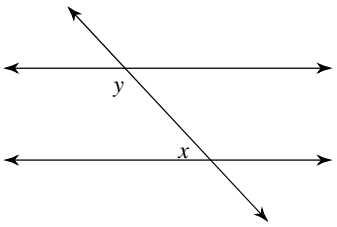
34)



A) $\overline{TU} \perp c$
B) $\overrightarrow{WU} \perp \overrightarrow{UT}$
C) $\overline{WU} \cong \overline{VT}$
D) $a \parallel b$

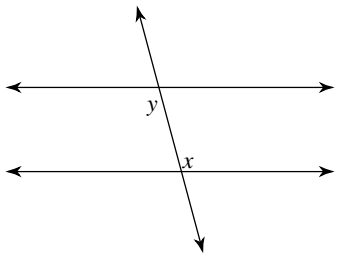
Identify each pair of angles as corresponding, alternate interior, alternate exterior, or same-side interior.

35)



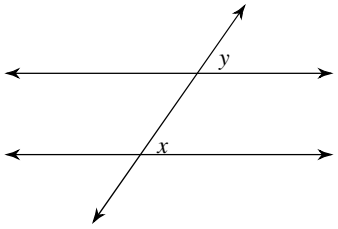
A) alternate interior
B) alternate exterior
C) corresponding
D) same-side interior

36)



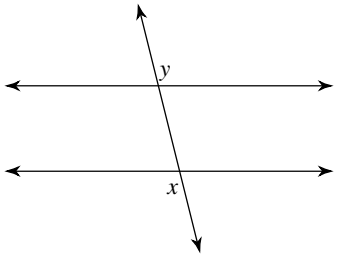
A) same-side interior
B) alternate exterior
C) corresponding
D) alternate interior

37)



A) alternate interior
B) same-side interior
C) alternate exterior
D) corresponding

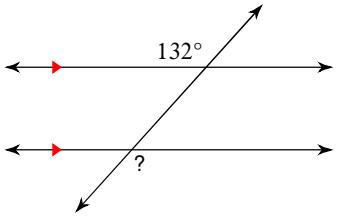
38)



A) corresponding
B) same-side interior
C) alternate interior
D) alternate exterior

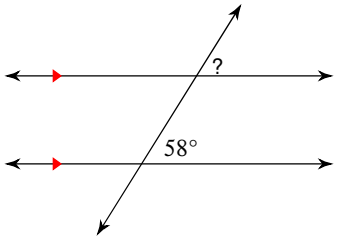
Find the measure of each angle indicated.

39)



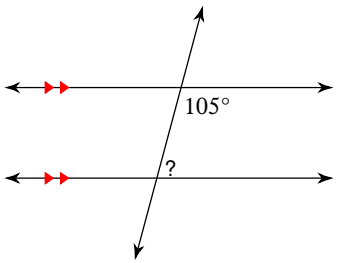
A) 118°
B) 132°
C) 61°
D) 38°

40)



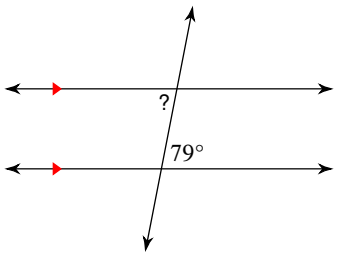
A) 140°
B) 58°
C) 76°
D) 60°

41)



A) 120°
B) 75°
C) 110°
D) 63°

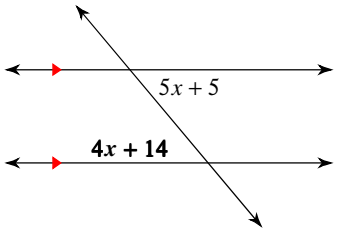
42)



A) 75°
B) 84°
C) 79°
D) 106°

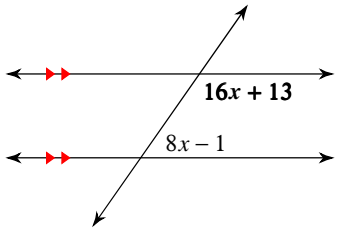
Find the measure of the angle indicated in bold.

43)



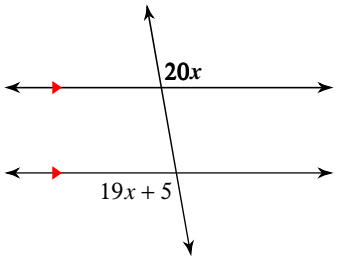
A) 65° B) 50°
C) 60° D) 44°

44)



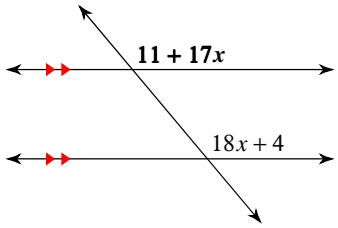
A) 60° B) 125°
C) 95° D) 135°

45)



A) 125° B) 100°
C) 127° D) 95°

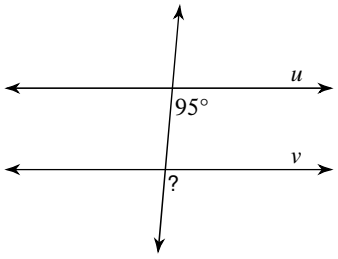
46)



A) 130° B) 110°
C) 40° D) 109°

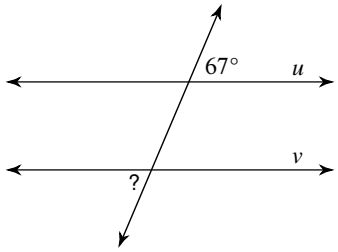
Find the measure of the indicated angle that makes lines u and v parallel.

47)



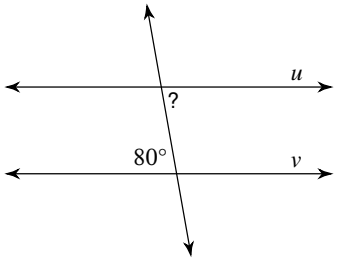
A) 105° B) 95°
C) 75° D) 70°

48)



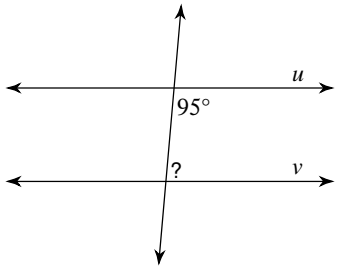
A) 75° B) 51°
C) 67° D) 143°

49)



A) 75° B) 120°
C) 80° D) 65°

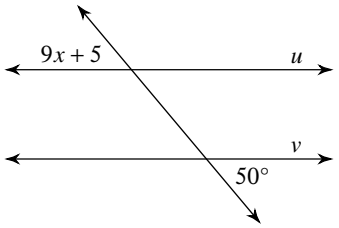
50)



A) 85° B) 95°
C) 98° D) 55°

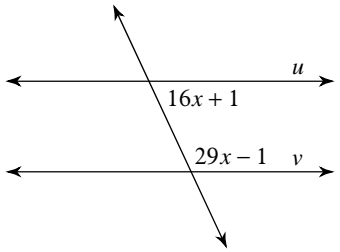
Find the value of *x* that makes lines u and v parallel.

51)



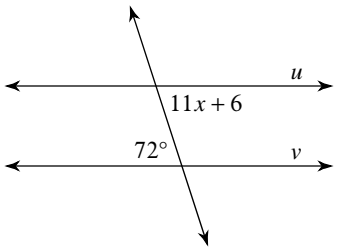
A) 7 B) 5
C) 9 D) −6

52)



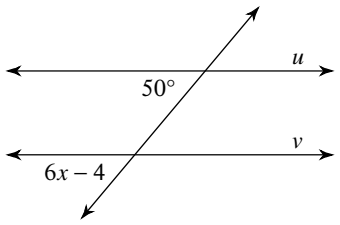
A) 9 B) 5
C) 6 D) 4

53)



A) 7 B) 6
C) −9 D) 10

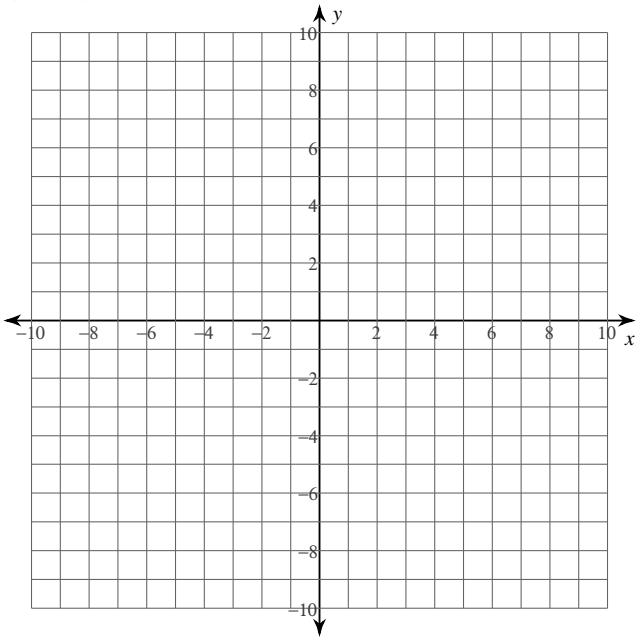
54)



A) −9 B) 8
C) 9 D) −8

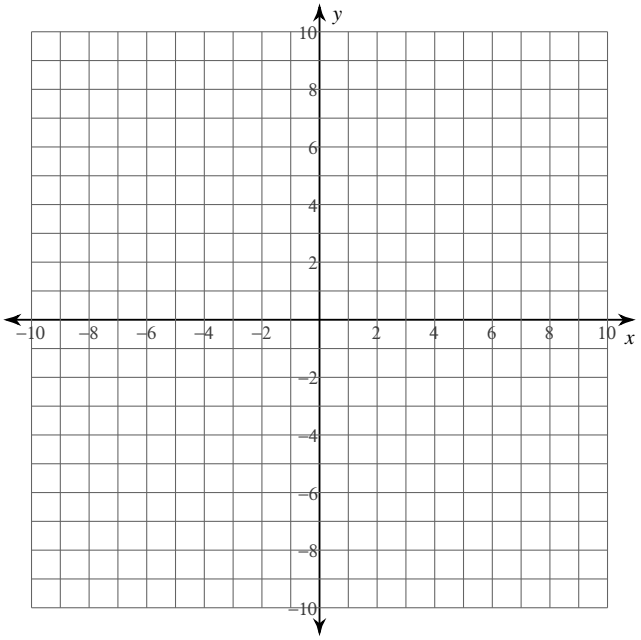
State the quadrant or axis that each point lies in.

55) $(-6, 6)$



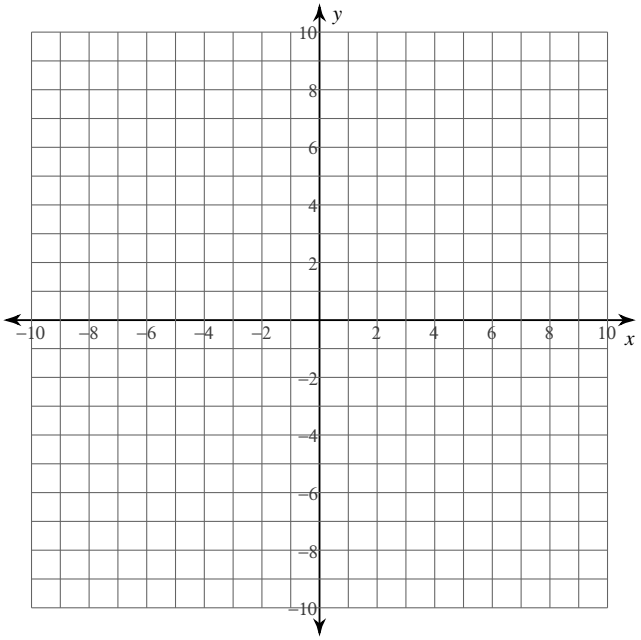
A) II B) IV
C) I D) y-axis

56) $(-7, -9)$



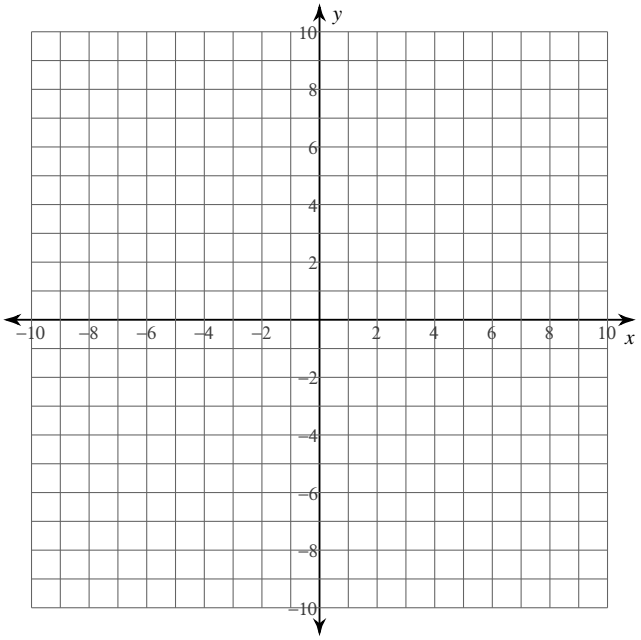
A) x-axis B) IV
C) III D) y-axis

57) $(3, -8)$



A) II B) III
C) IV D) y-axis

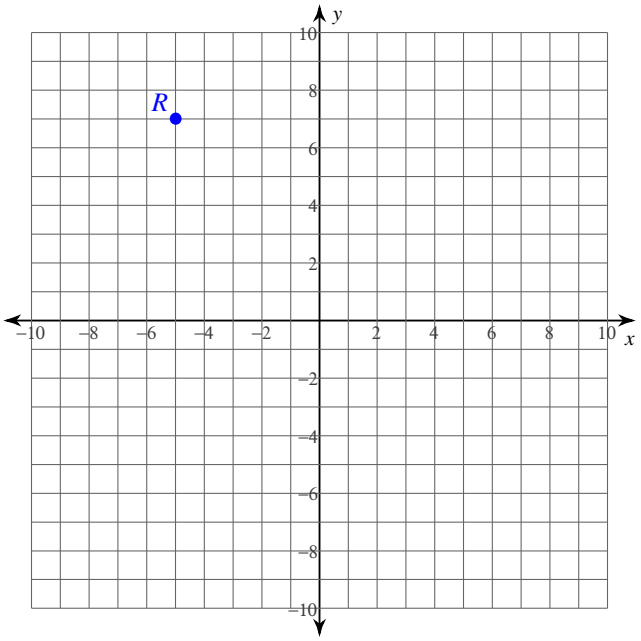
58) $(0, -3)$



A) I B) III
C) II D) y-axis

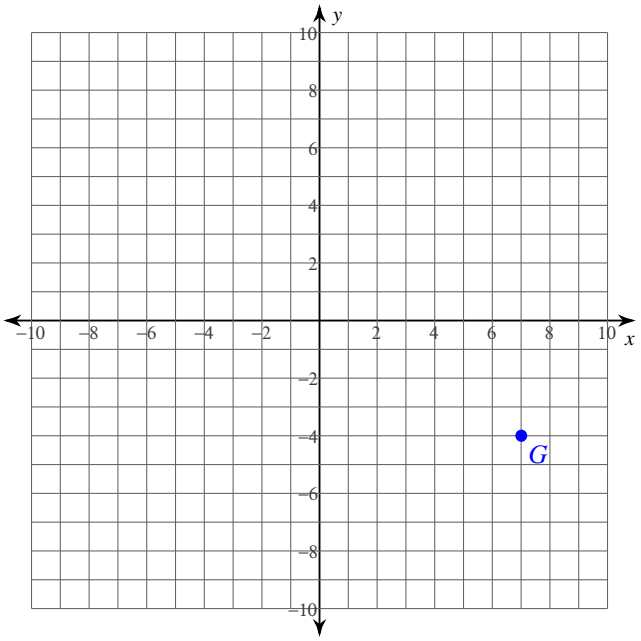
State the coordinates of each point.

59)



A) $R(-6, 7)$ B) $R(-5, 7)$
C) $R(5, -7)$ D) $R(-5, -7)$

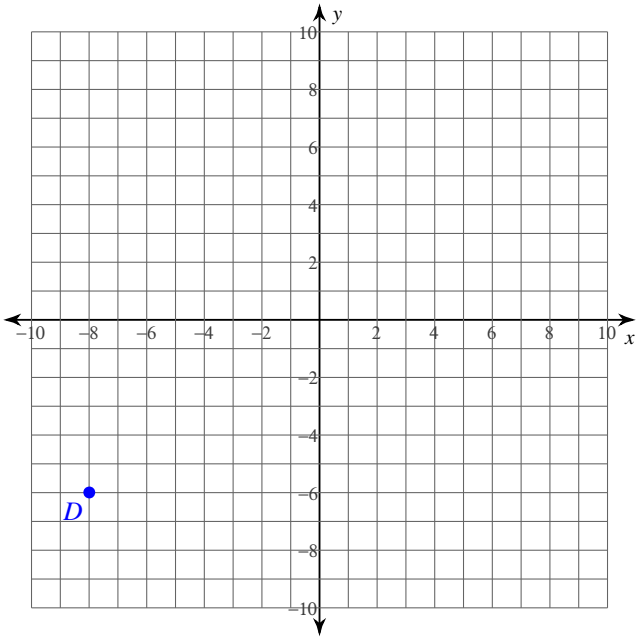
60)



A) $G(7, -4)$ B) $G(5, 7)$

C) $G(8, -4)$ D) $G(-4, 7)$

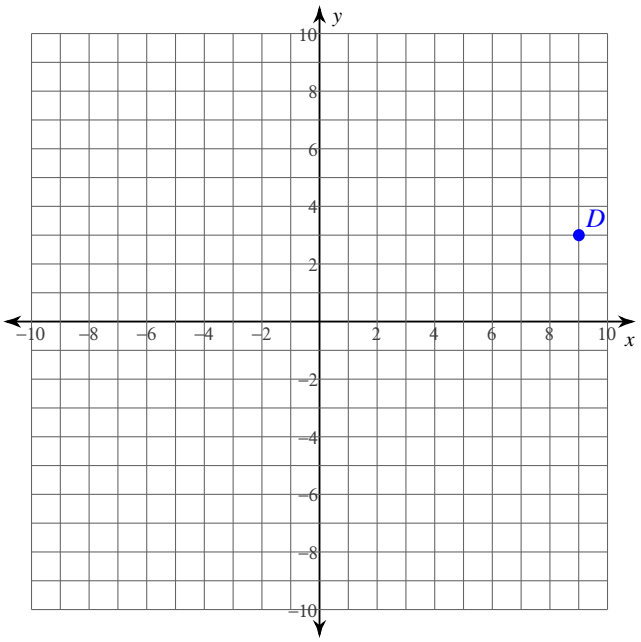
61)



A) $D(-8, 6)$ B) $D(-8, -6)$

C) $D(-8, -7)$ D) $D(-6, -9)$

62)



A) $D(8, 3)$ B) $D(9, 3)$

C) $D(9, -2)$ D) $D(-10, 3)$

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

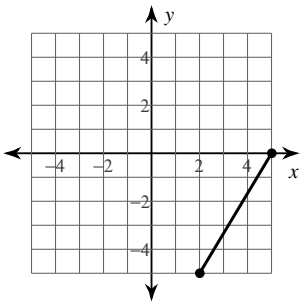
63) $(-5, -6),\ (-5, 6)$

A) $(-5, 0)$ B) $\left(-5\frac{1}{2}, \frac{1}{2}\right)$

C) $(-5, 18)$ D) $(0, -6)$

Find the midpoint of each line segment.

64)



A) $\left(1\frac{1}{2}, 2\frac{1}{2}\right)$ B) $\left(2\frac{1}{2}, -1\frac{1}{2}\right)$

C) $(-1, -10)$ D) $\left(3\frac{1}{2}, -2\frac{1}{2}\right)$

Find the other endpoint of the line segment with the given endpoint and midpoint.

65) Endpoint: $(2, 0)$, midpoint: $(-5, -7)$

A) $(-12, -14)$ B) $\left(-5\frac{1}{2}, \frac{1}{2}\right)$

C) $(1, -6)$ D) $\left(3\frac{1}{2}, 3\frac{1}{2}\right)$

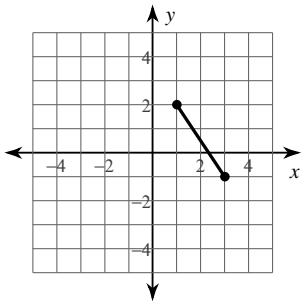
Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

66) $(-2, -3)$, $(2, -8)$

A) 3 B) 11

C) 6.4 D) 3.3

67)

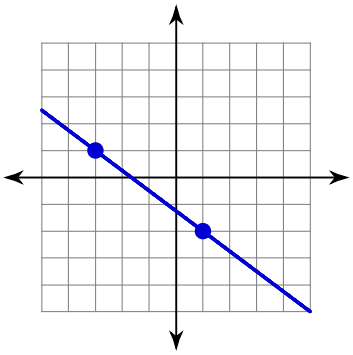


A) 3.6 B) 2.2

C) 8.6 D) 4.1

Find the slope of each line.

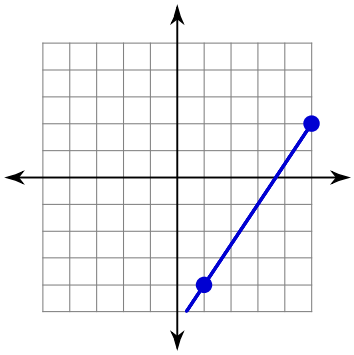
68)



A) $\frac{3}{4}$ B) $\frac{4}{3}$

C) $-\frac{4}{3}$ D) $-\frac{3}{4}$

69)



A) $-\frac{2}{3}$ B) $-\frac{3}{2}$

C) $\frac{3}{2}$ D) $\frac{2}{3}$

Find the slope of the line through each pair of points.

70) $(5, -8), (-9, -12)$

A) $-\frac{2}{7}$ B) $\frac{2}{7}$

C) $-\frac{7}{2}$ D) $\frac{7}{2}$

Find the slope of each line.

71) $y = \frac{8}{5}x - 4$

A) $-\frac{5}{8}$ B) $\frac{5}{8}$

C) $\frac{8}{5}$ D) $-\frac{8}{5}$

Find the slope of a line parallel to each given line.

72) $y = -\frac{1}{5}x - 3$

A) $-\frac{1}{5}$ B) 5

C) $\frac{1}{5}$ D) -5

Find the slope of a line perpendicular to each given line.

73) $y = \frac{5}{3}x - 3$

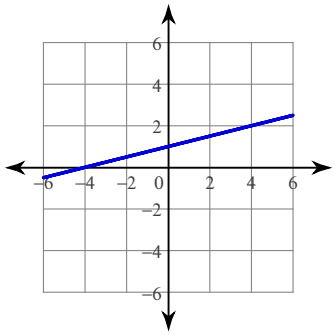
A) $-\frac{5}{3}$ B) $\frac{3}{5}$

C) $\frac{5}{3}$ D) $-\frac{3}{5}$

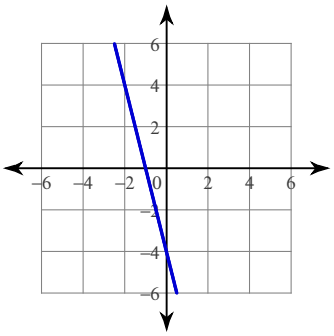
Sketch the graph of each line.

74) x-intercept = 1, y-intercept = 4

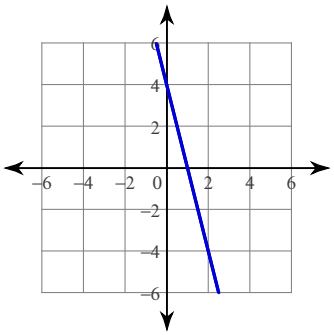
A)



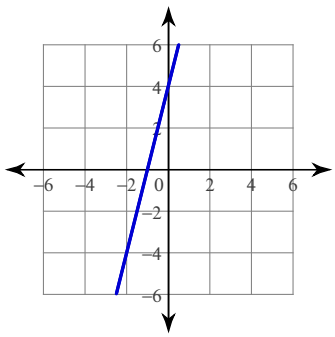
B)



C)

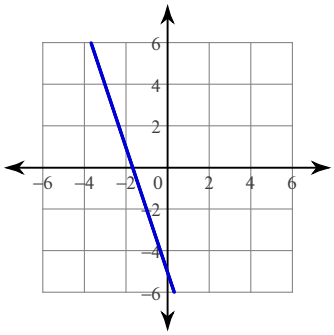


D)

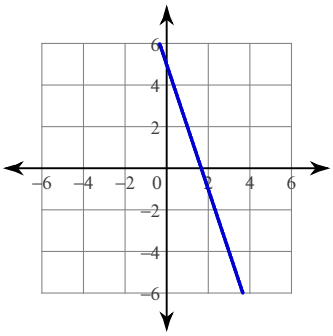


75) $y = -3x - 5$

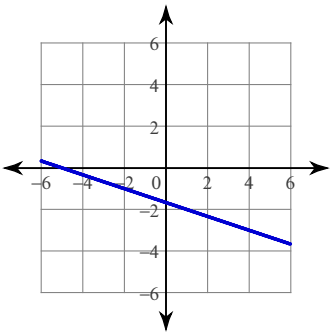
A)



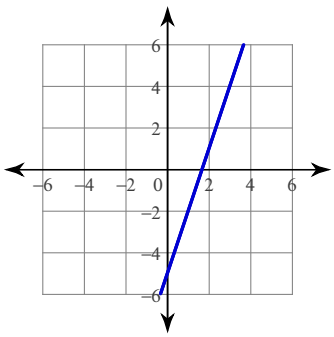
B)



C)

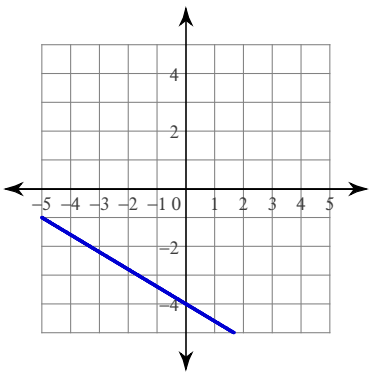


D)



Write the slope-intercept form of the equation of each line.

76)



A) $y = \frac{4}{5}x - 4$

B) $y = -\frac{3}{5}x - 4$

C) $y = \frac{1}{5}x - 4$

D) $y = \frac{3}{5}x - 4$

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

77) Slope = 1, y-intercept = −1

A) $y = -2x - 1$ B) $y = 5x - 1$

C) $y = x - 1$ D) $y = -x - 1$

Write the slope-intercept form of the equation of each line.

78) $7x - y = -2$

A) $y = 3x + 2$ B) $y = -3x + 2$

C) $y = -x + 2$ D) $y = 7x + 2$

79) $y - 3 = -\frac{1}{4}(x + 3)$

A) $y = \frac{5}{4}x + \frac{1}{4}$

B) $y = \frac{9}{4}x + \frac{1}{4}$

C) $y = -\frac{1}{4}x + \frac{9}{4}$

D) $y = \frac{1}{4}x + \frac{9}{4}$

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

80) through: $(-3, -1)$, slope $= \frac{3}{4}$

A) $y = -x + \frac{5}{4}$

B) $y = \frac{1}{2}x + \frac{5}{4}$

C) $y = \frac{3}{4}x + \frac{5}{4}$

D) $y = -\frac{1}{2}x + \frac{5}{4}$

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

81) through: $(-3, 3)$ and $(-3, -2)$

A) $x = 3$ B) $x = 1$

C) $x = -1$ D) $x = -3$

Write the slope-intercept form of the equation of the line described.

82) through: $(-3, 4)$, parallel to $y = -\frac{1}{7}x + 5$

A) $y = -\frac{3}{7}x + \frac{25}{7}$

B) $y = \frac{25}{7}x - \frac{1}{7}$

C) $y = \frac{1}{7}x + \frac{25}{7}$

D) $y = -\frac{1}{7}x + \frac{25}{7}$

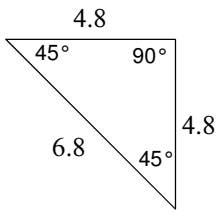
83) through: $(-3, 1)$, perp. to $y = -\frac{3}{4}x + 5$

A) $y = 5x - \frac{4}{3}$ B) $y = \frac{4}{3}x + 5$

C) $y = -5x - \frac{4}{3}$ D) $y = -\frac{4}{3}x + 5$

Classify each triangle by its sides.

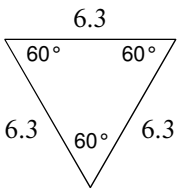
84)



A) isosceles B) equilateral

C) scalene

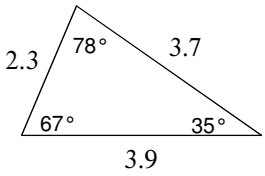
85)



A) scalene B) isosceles

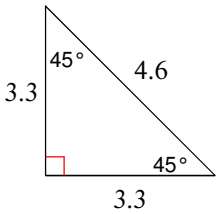
C) equilateral

86)



A) equilateral B) scalene
C) isosceles

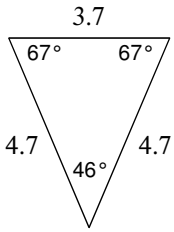
87)



A) equilateral B) scalene
C) isosceles

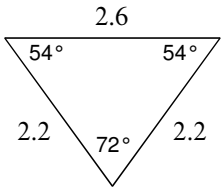
Classify each triangle by its angles.

88)



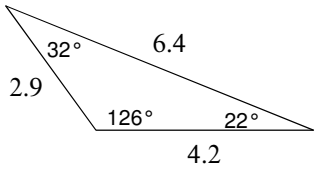
A) right B) equiangular
C) acute D) obtuse

89)



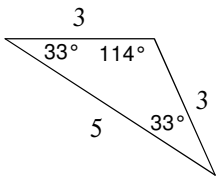
A) equiangular B) right
C) acute D) obtuse

90)



A) equiangular B) right
C) obtuse D) acute

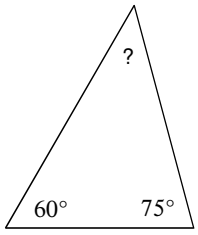
91)



A) obtuse B) equiangular
C) acute D) right

Find the measure of each angle indicated.

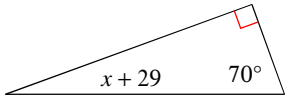
92)



A) 35° B) 160°
C) 45° D) 85°

Solve for *x*.

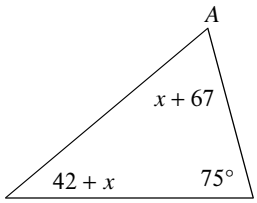
93)



A) −12 B) 8
C) −9 D) −4

Find the measure of angle A.

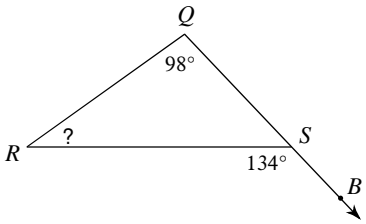
94)



A) 40° B) 65°
C) 20° D) 55°

Find the measure of each angle indicated.

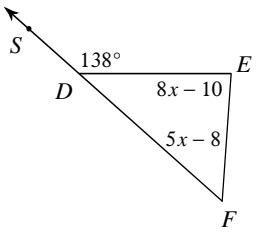
95)



A) 30° B) 28°
C) 46° D) 36°

Solve for *x*.

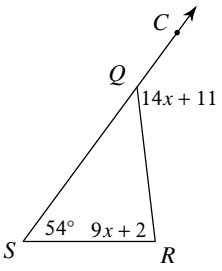
96)



A) 10 B) 4
C) 12 D) 9

Find the measure of the angle indicated.

97) Find $m\angle CQR$.



A) 118° B) 155°
C) 137° D) 83°

Complete each congruence statement by naming the corresponding angle or side.

98) $\Delta UTS \cong \Delta ESG$

$\angle TSU \cong$?

A) $\angle E$ B) $\angle G$
C) $\angle ESG$ D) $\angle S$

99) $\Delta VWX \cong \Delta HXF$

$\angle V \cong$?

A) $\angle X$ B) $\angle HXF$
C) $\angle H$ D) $\angle F$

100) $\Delta QRS \cong \Delta HGS$

$\angle RSQ \cong$?

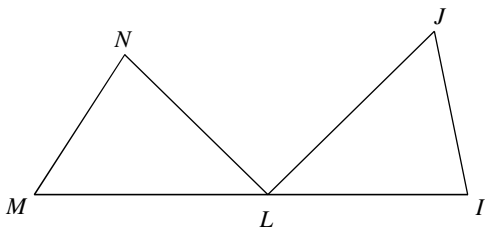
A) $\angle G$ B) $\angle GSH$
C) $\angle S$ D) $\angle H$

101) $\Delta QRS \cong \Delta QRV$

$\angle QRS \cong$?

A) $\angle V$ B) $\angle QRV$
C) $\angle R$ D) $\angle VQR$

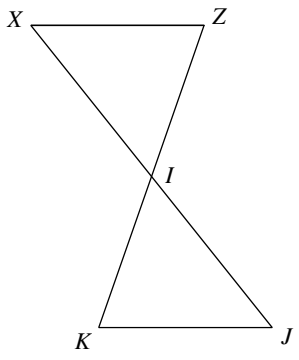
102) $\Delta MNL \cong \Delta JIL$



$\overline{LM} \cong$?

A) $\angle J$ B) $\overline{LJ}$
C) $\overline{JI}$ D) $\overline{IL}$

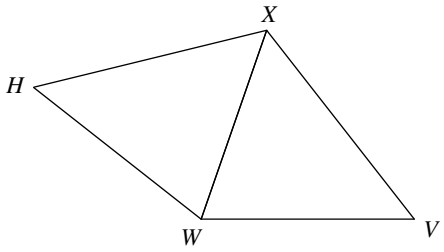
103) $\Delta IJK \cong \Delta IXZ$



$\overline{JK} \cong$?

A) $\overline{ZI}$ B) $\overline{XZ}$
C) $\overline{IX}$ D) $\angle Z$

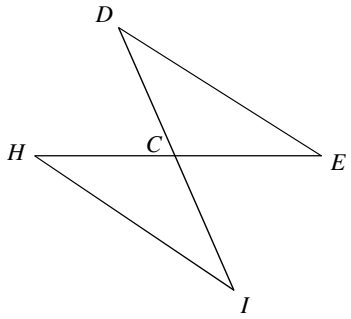
104) $\Delta WXV \cong \Delta WXH$



$\angle V \cong ?$

A) $\angle HWX$ B) $\angle WXH$
C) $\angle X$ D) $\angle H$

105) $\Delta CDE \cong \Delta CHI$

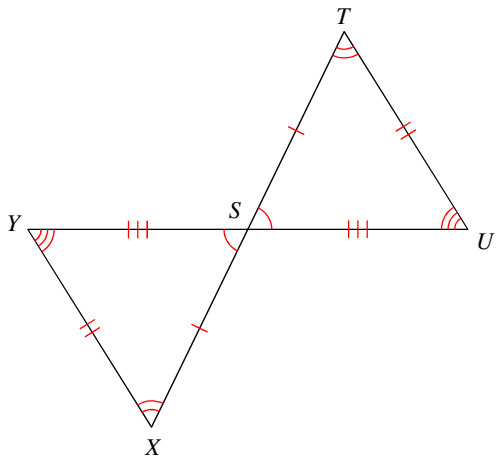


$\overline{DE} \cong ?$

A) $\overline{CH}$ B) $\overline{HI}$
C) $\angle H$ D) $\overline{IC}$

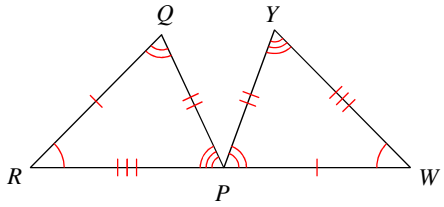
Write a statement that indicates that the triangles in each pair are congruent.

106)



A) $\Delta UST \cong \Delta XYS$
B) $\Delta UTS \cong \Delta SXY$
C) $\Delta STU \cong \Delta SXY$
D) $\Delta TUS \cong \Delta YSX$

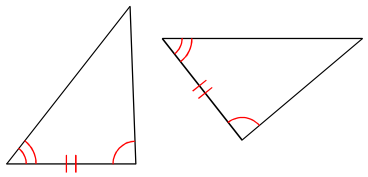
107)



A) $\Delta RQP \cong \Delta WPY$
B) $\Delta QRP \cong \Delta WPY$
C) $\Delta PQR \cong \Delta YWP$
D) $\Delta PRQ \cong \Delta WYP$

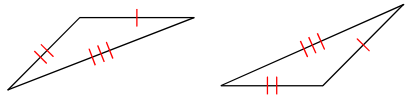
State if the two triangles are congruent. If they are, state how you know.

108)



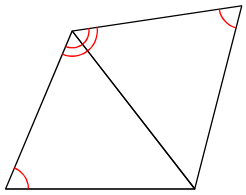
A) SSS B) AAS
C) ASA D) SAS

109)



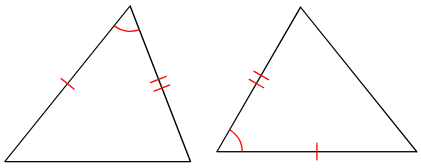
A) SAS B) AAS
C) Not congruent D) SSS

110)



A) SSS B) SAS
C) AAS D) Not congruent

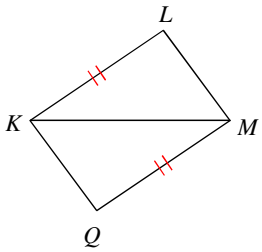
111)



A) SSS B) AAS
C) ASA D) SAS

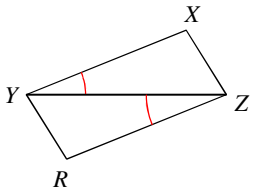
State what additional information is required in order to know that the triangles are congruent for the reason given.

112) SSS



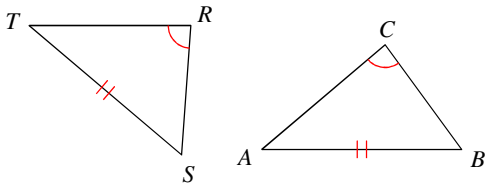
A) $\overline{KL} \cong \overline{MQ}$
B) $\overline{MK} \cong \overline{KM}$
C) $\overline{LM} \cong \overline{QK}$
D) $\overline{KL} \cong \overline{MQ}$ or $\overline{LM} \cong \overline{QK}$

113) ASA



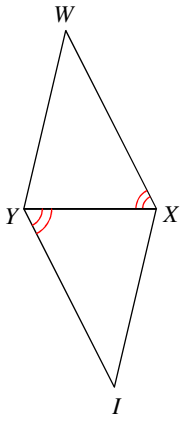
A) $\overline{YX} \cong \overline{ZR}$ or $\overline{XZ} \cong \overline{RY}$
B) $\overline{ZY} \cong \overline{YZ}$
C) $\overline{YX} \cong \overline{ZR}$
D) $\angle XZY \cong \angle RYZ$

114) AAS



A) $\overline{ST} \cong \overline{BA}$ or $\overline{TR} \cong \overline{AC}$
B) $\angle T \cong \angle A$
C) $\angle S \cong \angle B$ or $\angle T \cong \angle A$
D) $\angle R \cong \angle C$ or $\angle S \cong \angle B$

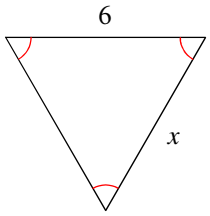
115) SAS



A) $\overline{YW} \cong \overline{XI}$
B) $\angle WXY \cong \angle IYX$ or $\angle XYW \cong \angle YXI$
C) $\angle WXY \cong \angle IYX$
D) $\overline{WX} \cong \overline{IY}$

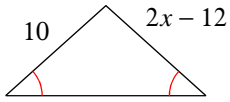
Find the value of x.

116)



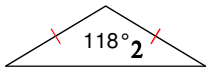
A) 6 B) 10
C) 8 D) 7

117)



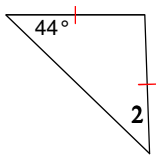
A) 12 B) 11
C) −10 D) 9

118) $m\angle 2 = x + 37$



A) −11 B) −6
C) 10 D) 8

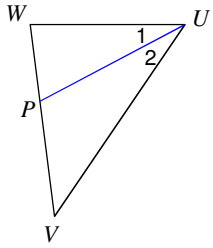
119) $m\angle 2 = x + 55$



A) −11 B) 7
C) 9 D) −7

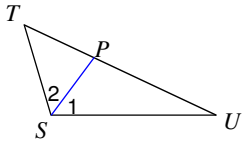
Each figure shows a triangle with one of its angle bisectors.

120) $m\angle 2 = 28°$. Find $m\angle 1$.



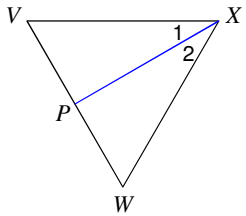
A) 14° B) 180°
C) 56° D) 28°

121) Find $m\angle UST$ if $m\angle 2 = 53°$.



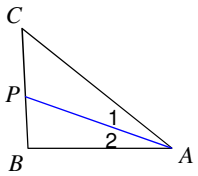
A) 53° B) 26.5°
C) 159° D) 106°

122) Find x if $m\angle 2 = 2x + 14$ and $m\angle 1 = 3x + 6$.



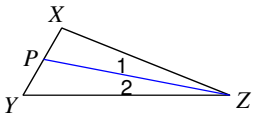
A) 4 B) 3
C) 2 D) 8

123) Find x if $m\angle 1 = 3x + 7$ and $m\angle CAB = 9x + 2$.



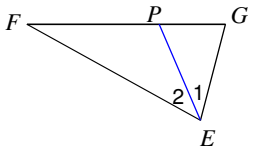
A) 7 B) 10
C) 5 D) 4

124) Find $m\angle 2$ if $m\angle 2 = x + 1$ and $m\angle XZY = 3x - 8$.



A) 50° B) 11°
C) 74° D) 92°

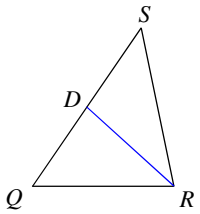
125) Find $m\angle 2$ if $m\angle 1 = 7x - 4$ and $m\angle 2 = 6x + 2$.



A) 44° B) 38°
C) 42° D) 95°

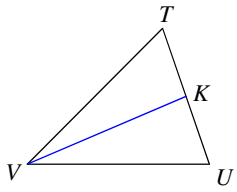
Each figure shows a triangle with one or more of its medians.

126) Find DQ if $SQ = 7.8$



A) 1.3 B) 5.85
C) 1.95 D) 3.9

127) Find x if $KT = 4x$ and $KU = 5x - 2$



A) 2 B) 12
C) 7.9 D) 1.3

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

128) 9, 13, 12

A) No B) Yes

129) 2, 6, 8

A) Yes B) No

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

130) 11, 8

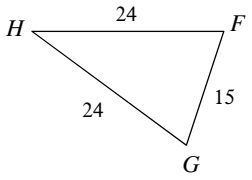
A) $3 < x < 18$ B) $4 < x < 15$
C) $5 < x < 18$ D) $3 < x < 19$

131) 7, 10

A) $7 < x < 17$ B) $3 < x < 17$
C) $3 < x < 13$ D) $4 < x < 17$

Order the angles in each triangle from smallest to largest.

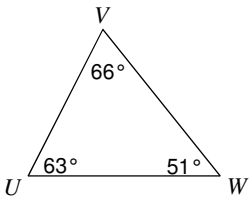
132)



A) $\angle H$; $\angle F$ and $\angle G$
B) $\angle F$ and $\angle G$; $\angle H$
C) $\angle G$, $\angle F$, $\angle H$
D) $\angle F$ and $\angle H$; $\angle G$

Order the sides of each triangle from shortest to longest.

133)



A) $\overline{UV}$, $\overline{UW}$, $\overline{VW}$
B) $\overline{UW}$, $\overline{UV}$, $\overline{VW}$
C) $\overline{UV}$, $\overline{VW}$, $\overline{UW}$
D) $\overline{UW}$, $\overline{VW}$, $\overline{UV}$

Given the following conditional statement,identify the hypothesis.

134) If today is Wednesday then tomorrow is Thursday.

A) Tomorrow is Thursday
B) Today is Wednesday

135) If it does not snow then we will not have a white Christmas.

A) It does not snow
B) We will not have a white Christmas

136) If I do not drink water then I will be thirsty.

A) I do not drink water
B) I will be thirsty

Given the following conditional statement; identify the converse, the inverse, and the contrapositive.

137) If it is cold outside then I will wear a jacket.

If I will wear a jacket then it is cold outside.

A) converse B) inverse
C) contrapositive

138) If I pass my geometry final then I am happy.

If I did not pass my geometry final then I am not happy.

A) converse B) inverse
C) contrapositive

139) If tomorrow is Saturday then I do not go to school.

If I go to school then tomorrow is not Saturday.

A) converse B) inverse
C) contrapositive