SUMMER WORK PACKAGE

**Multiple-choice questions
designed for Geometry graduates.**

1) Find $m\angle PQR$ if $m\angle PQT = 46°$
    and $m\angle TQR = 114°$.
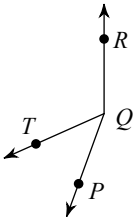
   A) 129°   B) 136°   C) 154°   D) 160°

Find the measure of angle b.

2)
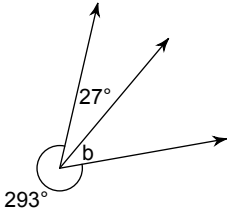
   A) 137°   B) 126°   C) 40°   D) 50°

Solve for x.
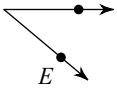
3)

$49x - 2$

$47x + 2$
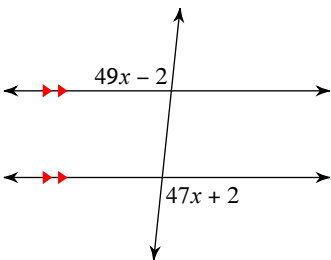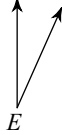
   A) 10   B) 9   C) 2   D) 8

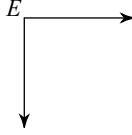**Draw and label an angle to fit each description.**

4) an obtuse angle, $\angle E$

A)

B)

C)

D)
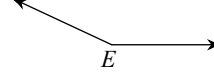
Find the measure of the angle indicated in bold.

5)

$17x + 11$

$6x + 8$
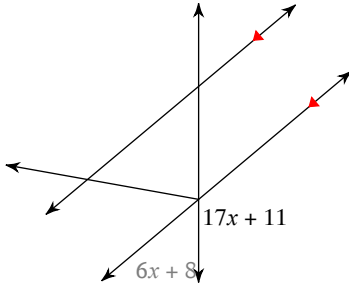
A) 65°   B) 102°   C) 120°   D) 130°

Find the value of x.

6)

$(x - 1)°$

$2x°$ 226°
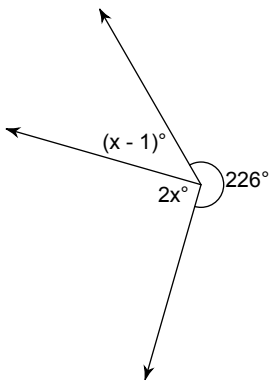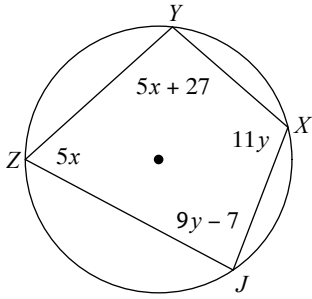
A) 51   B) 56   C) 45   D) 53

Solve for *x* and *y*.

7)

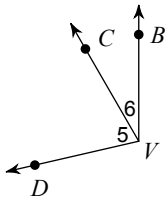A) $x = 14$, $y = 10$ B) $x = 10$, $y = 9$ C) $x = 3$, $y = 10$ D) $x = 7$, $y = 4$

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

8)

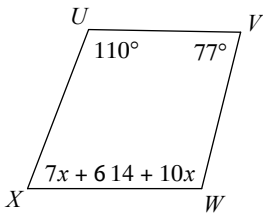A) $\angle 5, \angle 6, \angle CDV$ B) $\angle 5, \angle 6, \angle VBC$ C) $\angle 5, \angle 6, \angle BCD$ D) $\angle 5, \angle 6, \angle DVB$

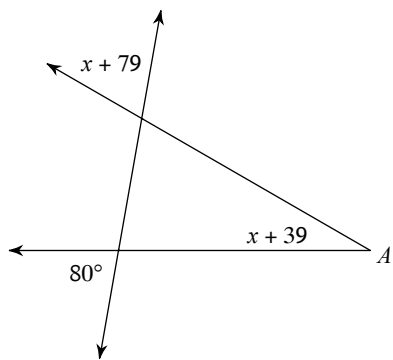**Find the measure of each angle indicated.**

9) $m\angle W$

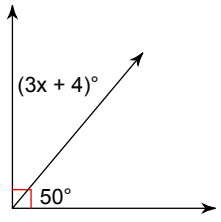A) $50°$ B) $98°$ C) $58°$ D) $104°$

Find the measure of angle A.

10)

x + 79

x + 39

A

80°

A) 70°   B) 25°   C) 30°   D) 31°

Find the value of x.

11)

(3x + 4)°

50°
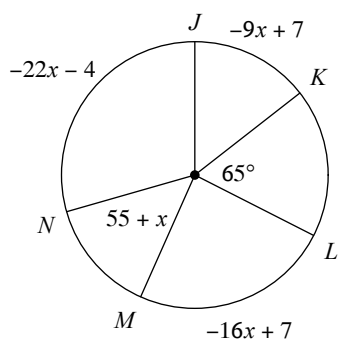
A) 2   B) 8   C) 12   D) 1

Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.
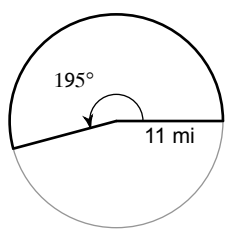
12) $m\widehat{MN}$

J   −9x + 7

−22x − 4   K

65°

N   55 + x

L

M   −16x + 7

A) 62°   B) 142°   C) 122°   D) 50°

Find the area of each sector.

13)

195°

11 mi

A) π mi²   B) 4290π mi²   C) $\dfrac{33\pi}{4}$ mi²   D) $\dfrac{1573\pi}{24}$ mi²

Find the circumference of each circle.

14)

5 ft
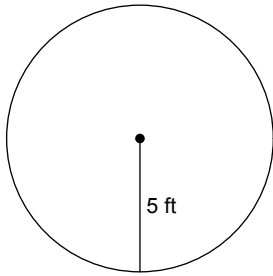
A) 8π ft   B) 10π ft   C) 16π ft   D) 12π ft

Find the area of each.

15)

9 yd

10 yd
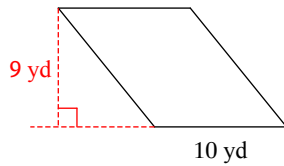
A) 180 yd²   B) 94.1 yd²   C) 90 yd²   D) 91.5 yd²

Find the area of each figure. Round your answer to the nearest tenth.

16)
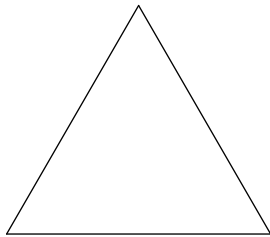
Perimeter = 21 in

A) 21.2 in²   B) 31.5 in²   C) 73.5 in²   D) 42.4 in²

17)

5 ft

6 ft   147°
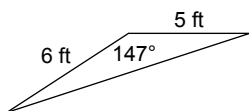
A) 12.6 ft²   B) 9.7 ft²   C) 8.2 ft²   D) 16.3 ft²

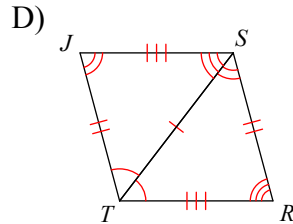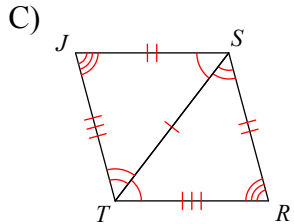**Determine if the two triangles are congruent. If they are, state how you know.**
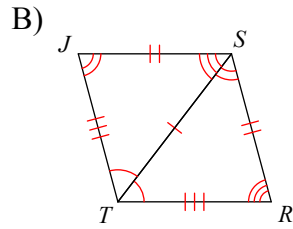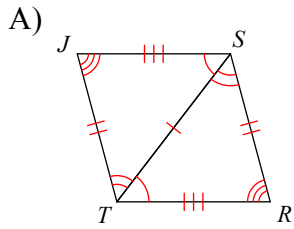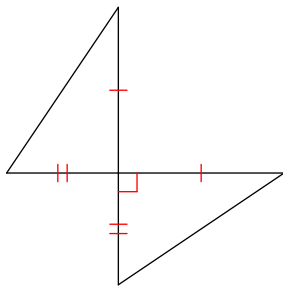
18)
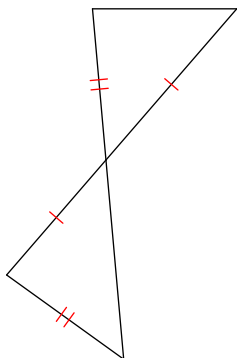
A) SAS   B) Not enough information   C) AAS   D) SSS

Mark the angles and sides of each pair of triangles to indicate that they are congruent.

19) $\triangle TSR \cong \triangle STJ$

A)

B)

C)

D)

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

20)
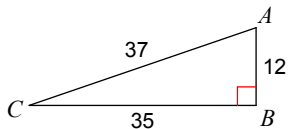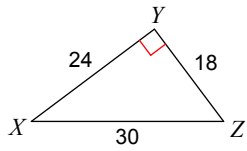

A) SAS   B) Not enough information   C) AAS   D) SSS

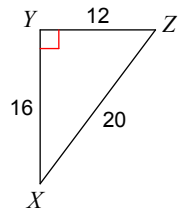**Find the value of each trigonometric ratio.**

21) $\sin C$

A) $\dfrac{37}{35}$ B) $\dfrac{35}{37}$ C) $\dfrac{12}{35}$ D) $\dfrac{12}{37}$

22) cos Z

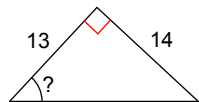A) $\dfrac{5}{3}$ B) $\dfrac{3}{5}$ C) $\dfrac{4}{3}$ D) $\dfrac{4}{5}$

23) cos Z

A) $\dfrac{5}{4}$ B) $\dfrac{5}{3}$ C) $\dfrac{4}{3}$ D) $\dfrac{3}{5}$
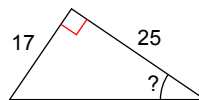
Find the measure of the indicated angle to the nearest degree.
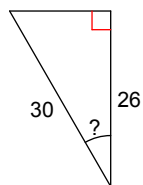
24)

A) 68°   B) 22°   C) 43°   D) 47°

25)

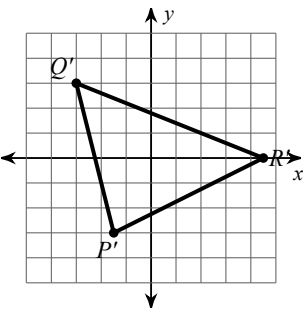A) 47°   B) 34°   C) 52°   D) 43°

26)

A) 30°   B) 60°   C) 49°   D) 41°
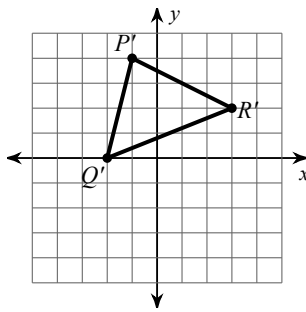
Graph the image of the figure using the transformation given.
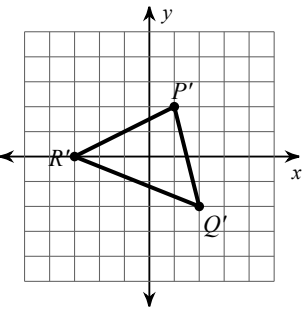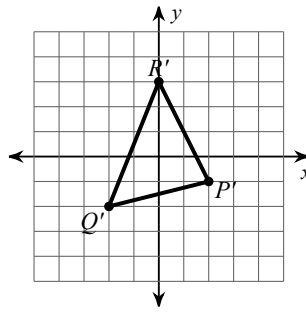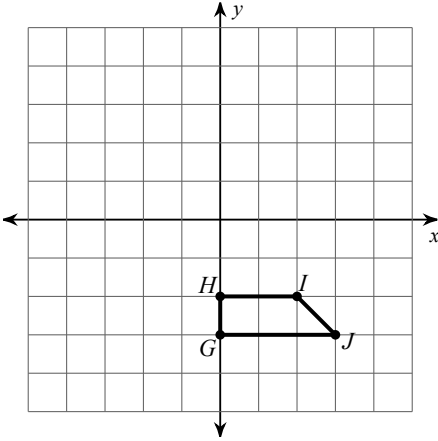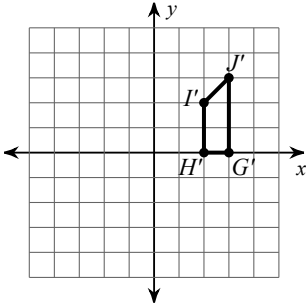
27) dilation of 1.5 about the origin
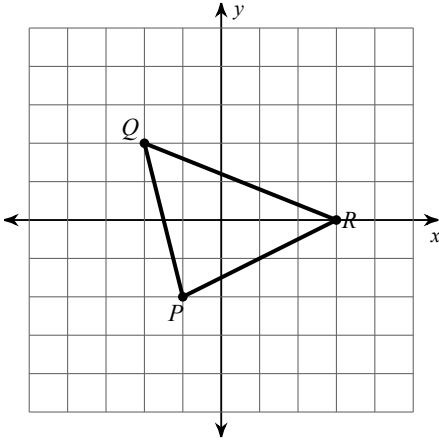
A)

B)

C)

D)
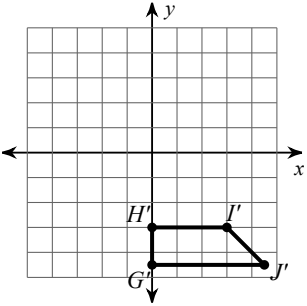
28) translation: 2 units left and 5 units up
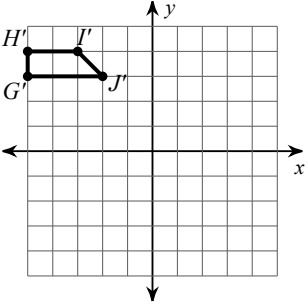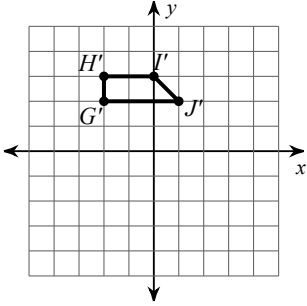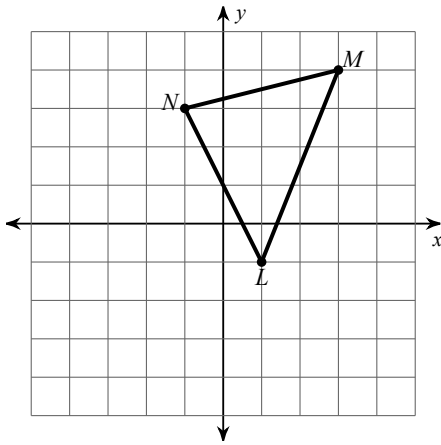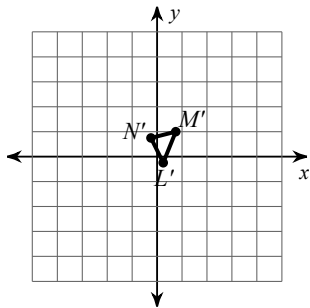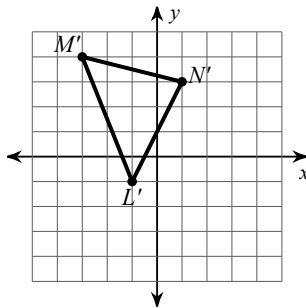

A)

B)

C)

D)

29) reflection across the y-axis
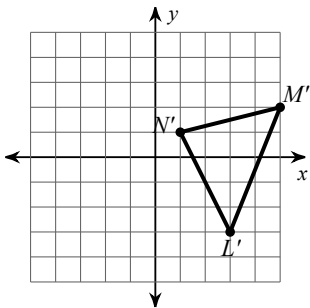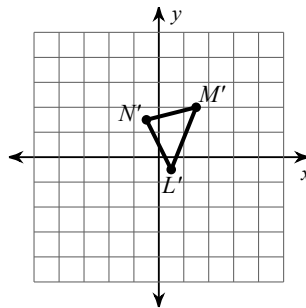

A)

B)

C)

D)

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

30) $(-3.7, 2)$, $(-2.7, -4.4)$

  A) 11.5   B) 8.3   C) 2.7   D) 6.5