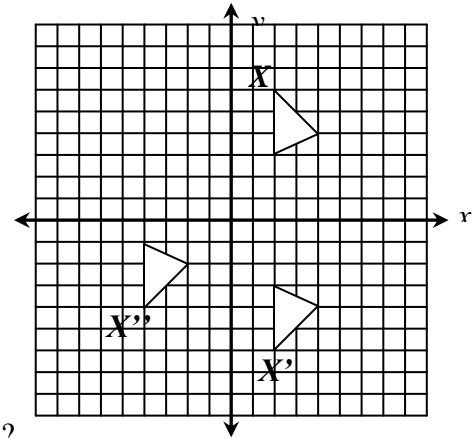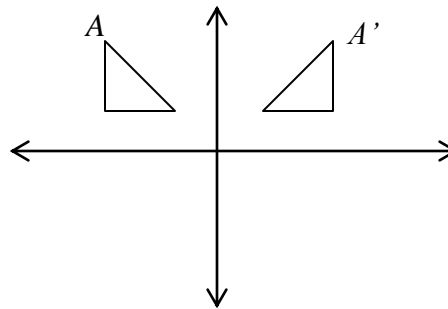**Geometry Review for Exam 2**   **Name:** _____

1.   What two transformations were performed to obtain $\Delta X''Y''Z''$ in the diagram?

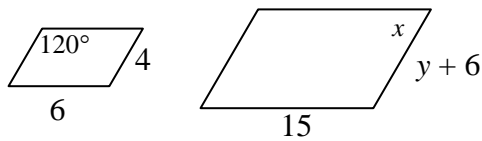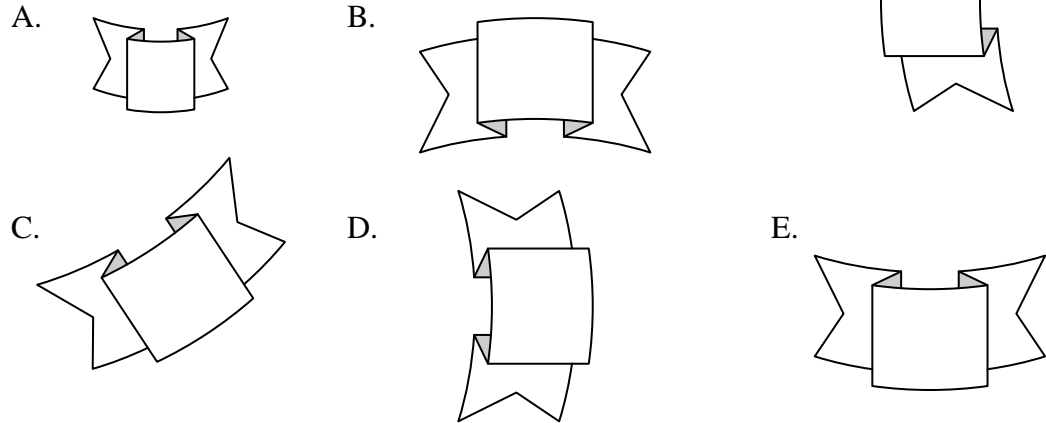2.   What type of transformation is shown in the diagram?

3.   If $B(-2, -1)$ is reflected over the line y-axis, then the coordinates of B' are ___?___.

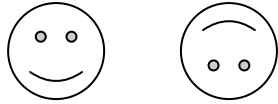4.   The two parallelograms shown are similar. What are the values of x and y?

5.   Which of the following is *not* a rotation of the figure at the right?
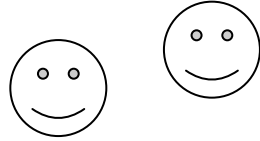
A.   B.

C.   D.   E.
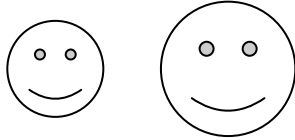
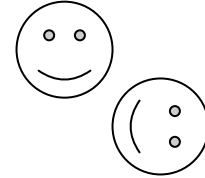6. Which one of the following is a translation?

   A.

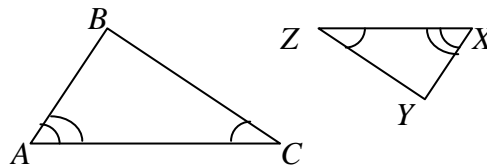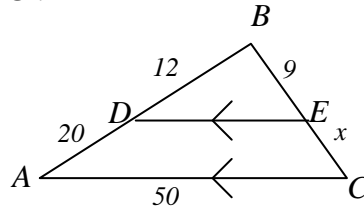   B.

   C.

   D.

7. Write all congruency statements for the similar triangles shown

B

Z X

Y

A C

8. What is the perimeter of $\triangle ABC$?

B

12   9

D E

20   x

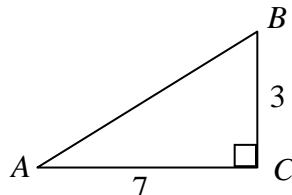A C

50

9. State scale factor, k, of enlargement of a photo being enlarged from an original length of 4 inches to a size where the new length is 10 inches.

10. Use the diagram to find the values of x and y.

T

10

y

O

2.5

S x
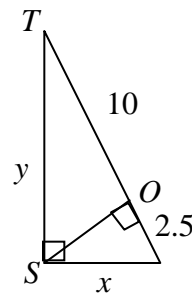
11. In the diagram below, what is the measure of $\angle A$ to the nearest tenth of a degree?
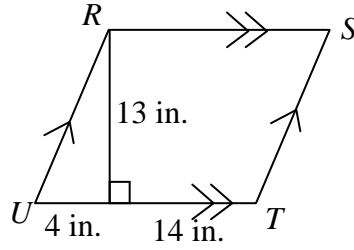
B

3

A C

7

12. Can the set {5, 12, 15} represent the side lengths of an obtuse triangle?

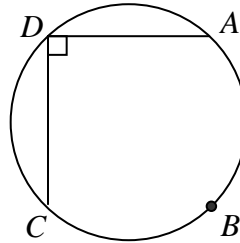13. Can the set of numbers {10, 24, 26} represent a right triangle?

14. Given ▱ RSTU, what is the…

    …area?

    …perimeter?
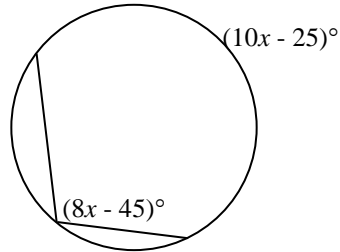
R ⟩⟩ S
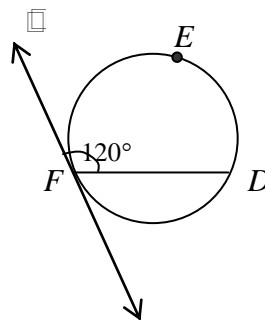
13 in.

U   4 in.   14 in.   T

15. Use the diagram to find $m\overparen{ADC}$.

D   A

C   B

16. Use the diagram to find the value of x.

(10x - 25)°

(8x - 45)°

17. Use the diagram to find $m\overparen{DEF}$.

E

120°

F   D

18. Use the diagram to find the value of x.

P

Q   95° $x°$ S

R
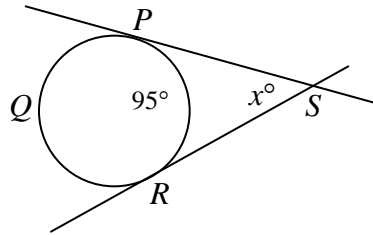
19. Use the diagram to find the value of x.

160°

V

$x°$ T

R

S

66°
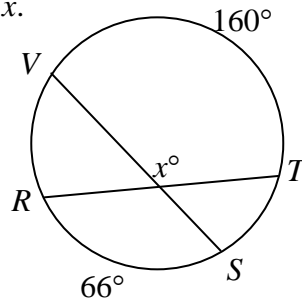
20. Use the diagram to find the value of x.

8

4

x

3
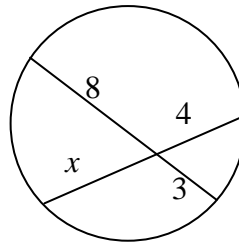
21. Find the value of x.

7

x 4
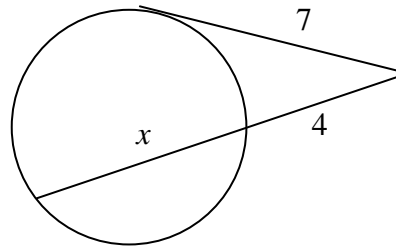
22. Find the exact area of the shaded sector.

8 cm

50°
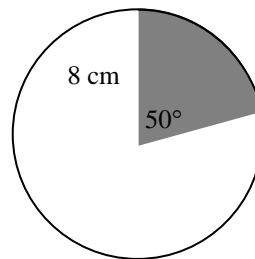
23. What is the length of $\overset{\frown}{AB}$?
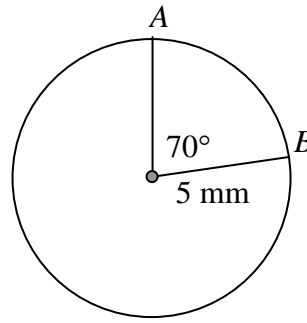
24. Find x and y.
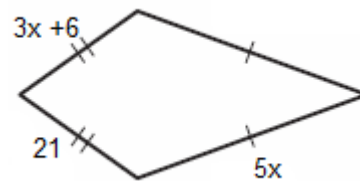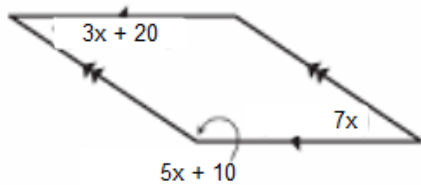

25. Find x.

50 ft
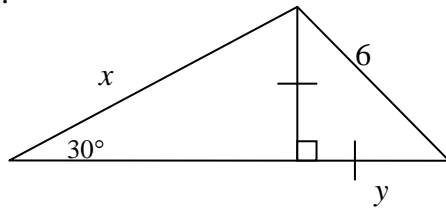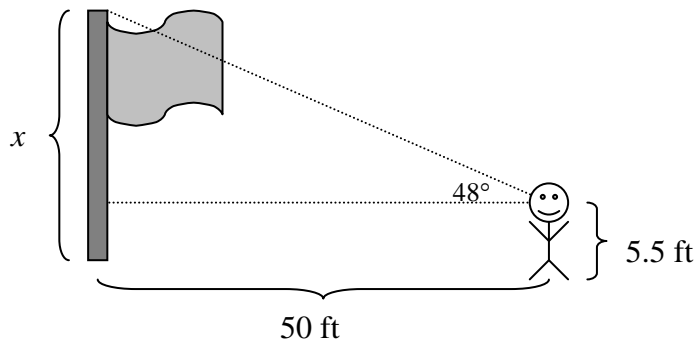
26. Find $\sin A$.
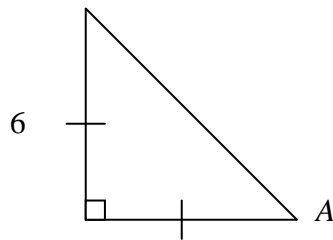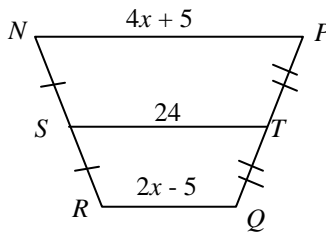

27. Give the coordinate of A (3, 5) under a dilation of scale factor $k = 2$ with center (0, 0).

28. Find the value of x in each figure.

$3x + 20$

$7x$

$5x + 10$

$3x + 6$

21

$5x$

29. *NPQR* is a trapezoid and *ST* = 24. Find the value of *x*.

A. 6

B. 10

C. 8

D. 9

E. 11

30. What special type of quadrilateral has the vertices *F*(-6, -2), *G*(1, -2), *H*(-6, -5), and *I*(1, -5)? What is the area of this quadrilateral?

A. kite

B. parallelogram

C. rectangle

D. rhombus

E. square

G. 12 units^2

H. 15 units^2

I. 16 units^2

J. 21 units^2

K. 30 units^2

31. Be able to match the graph of a circle with the equation of the circle.

4. **Multiple Choice** What is the center and radius of the circle in the diagram?

Ⓐ (1, 4), 2

Ⓑ (4, 3), 2

Ⓒ (3, 4), 2

Ⓓ (4, 3), 4

Ⓔ (3, 4), 4

5. **Multiple Choice** What is the equation of the circle in Exercise 4?

Ⓐ $(x + 4)^2 + (y + 3)^2 = 2$

Ⓑ $(x - 3)^2 + (y - 4)^2 = 2$

Ⓒ $(x + 4)^2 + (y + 3)^2 = 4$

Ⓓ $(x - 3)^2 + (y - 4)^2 = 4$

Ⓔ $(x - 1)^2 + (y - 4)^2 = 4$

32. What is the surface area and volume of a cylinder with a base that has a radius of 3.7 inches and a height of 12.5 inches?

Surface Area: *Volume:*

33. What is the surface area and volume of a square pyramid with a base that has side lengths of 6 inches and a height of 12 inches?

Surface Area: *Volume:*