Math-2   Name_____ ID: 1
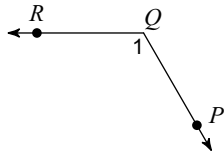SM2 HW #10-4 (Unit 4 Review Part 1)   Period____

Name each angle in four ways.

1)

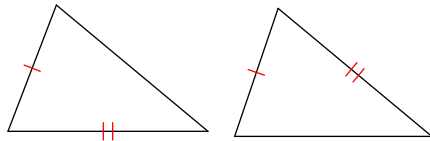**Find the midpoint of the line segment with the given endpoints.**

2) $(-7, -4)$, $(-6, 8)$

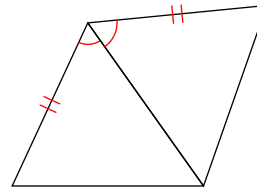**Find the other endpoint of the line segment with the given endpoint and midpoint.**

3) Endpoint: $(0, -8)$, midpoint: $(-6, 4)$

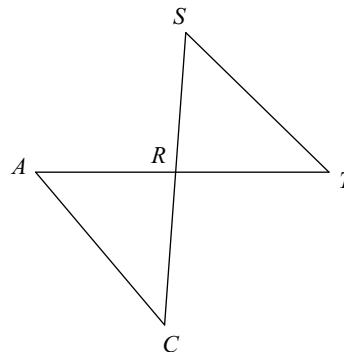**State if the two triangles are congruent. Give the Triangle Congruence Theorem that proves congruence.**

4)

5)

6) Find the distance between (2, 5) and (7, 8)

Complete each congruence statement by naming the corresponding angle or side.
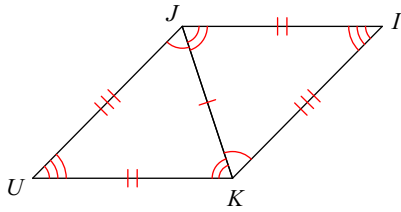
7) $\triangle RST \cong \triangle RAC$
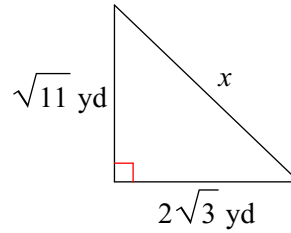

$\overline{ST} \cong ?$

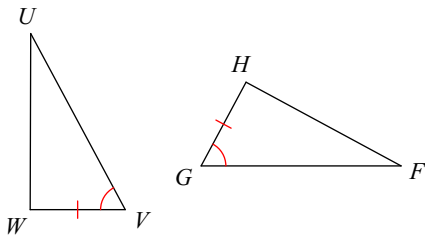**Write a statement that indicates that the triangles in each pair are congruent.**

8)

Find the missing side of each triangle. Leave your answers in simplest radical form.
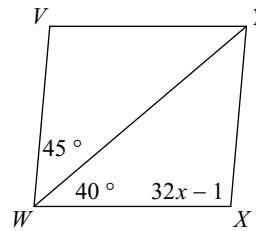
9)

$\sqrt{11}$ yd

x

$2\sqrt{3}$ yd

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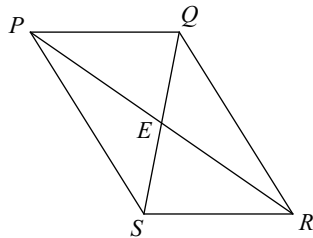
10) AAS
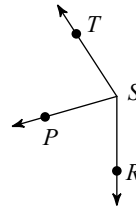

Solve for x. Each figure is a parallelogram.

11)

45 °

40 ° $32x - 1$

Find the measurement indicated in each parallelogram.

12) $QE = 2x + 15$
$ES = x + 15$
Find QE

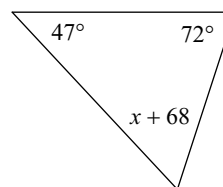13) $m\angle PST = 73°$ and $m\angle RSP = 74°$.
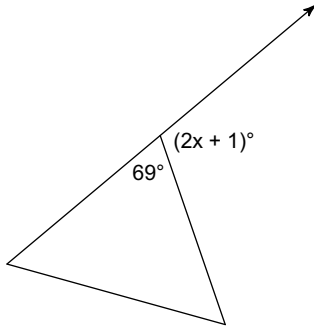Find $m\angle RST$.

Solve for x.

14)

$5 + 13x$

$5 + 21x$
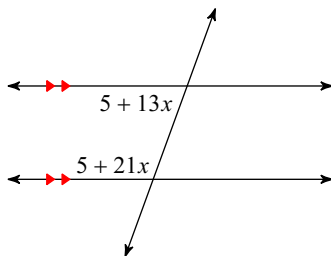
Solve for x. (1 point for your equation, 1 point for the correct answer.)

15)

47°   72°

$x + 68$

Find the value of x.

16)

(2x + 1)°

69°

Find the value of *x*.

17)

x

44°

Find the measurement indicated in each parallelogram.

18) Find $m\angle C$

D   E

45x   44x + 2

C   B

Name each angle in four ways.

19)

E

2 D

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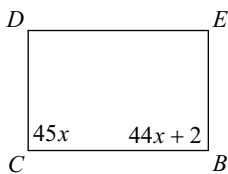
Find the midpoint of the line segment with the given endpoints.

20) $(-7, -7)$, $(8, -8)$

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

21) Endpoint: $(-10, -5)$, midpoint: $(-6, -4)$

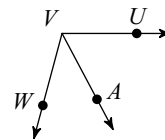**Find the distance between each pair of points.**

22) $(-5, -2)$, $(-2, -3)$

23) Find $m\angle UVW$ if $m\angle AVW = 43°$ and $m\angle UVA = 62°$.

V   U

W   A

Solve for *x*.

24)

9x + 1

100°

25)

42x + 4

−2 + 44x
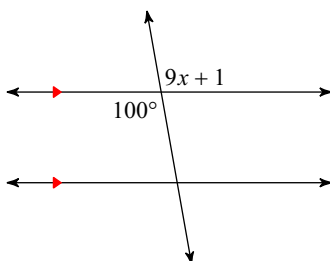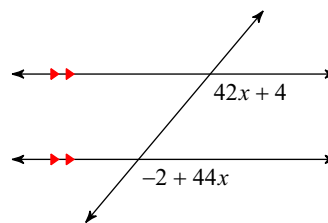
Find the measure of angle A.

26)

80°   60 + x

x + 60

A

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

27)
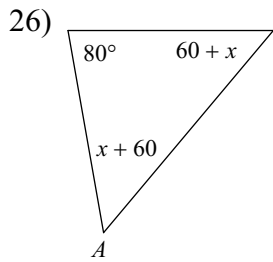
Find the length indicated.

28) Find IJ

$x + 9$ $x + 18$

H •   •I   •J

13

Use calculations to show that the triangle is (or is not) a right triangle.

29)

12 m   11 m

$4\sqrt{5}$ m

Solve for x. Each figure is a parallelogram.

30)

Z   Y

$21x - 2$

$19x + 6$

W   X

Find the measurement indicated in each parallelogram.

31) Find XW

Y   X

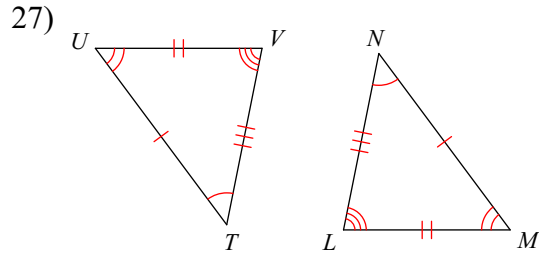$-2 + 2x$ $x + 4$

V   W
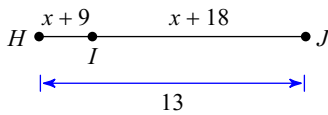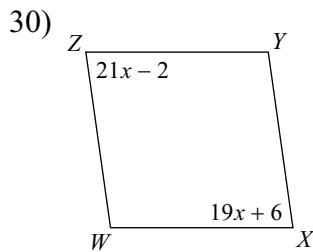
State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.
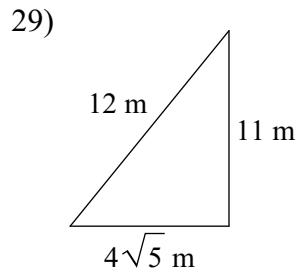
32)

20

V   L   10
         U

M 5
10   T

$\triangle VUT \sim$ _____
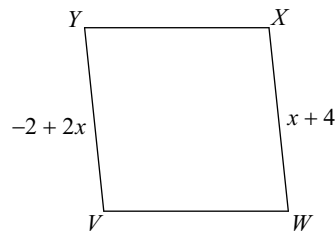
Solve for x. The triangles in each pair are similar.

33)

F

11   77
8

$17x + 5$

L   K

D   E