GEOMETRY   Final Review

2. The length of the side "x" is
   a)   3
   b) $3\sqrt{2}$
   c)   45
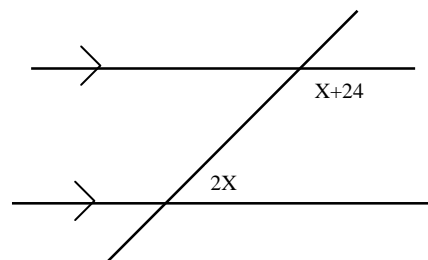   d) $\sqrt{41}$
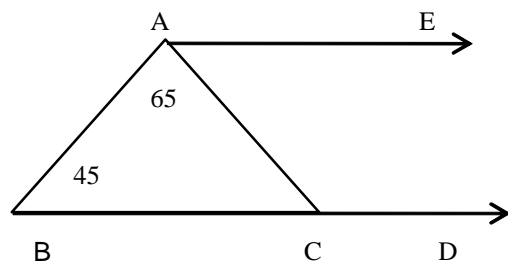
5

4

x

NAME:_____

5. What is the area of the shape?
   a) 164 sq. units
   b) 41 sq. units
   c) 328 sq. units
   d) 61 sq. units

13

10

22

6

6. Based on the markings shown, which of these is a true statement ?
   a)   ΔABC   ≅   ΔXYZ   by AAA
   b)   ΔABC   ≅   ΔYXZ   by AAS
   c)   ΔABC   ≅   ΔZXY   by SAS
   d)   ΔABC   ≅   ΔXYZ   by ASA

C   B   X   Y

A   Z

7. Find coordinate of a point Z, so that

triangle ABC is congruent to triangle XYZ
   a)   (8, 0)
   b)   (8,-1)
   c)   (7,-1)
   d)   (7,0)

A(5,10)

B(10,8)

X(11,6)

C(1,3)

Y(16,4)

8. x = ?   a) 8   b) 41   c) 68   d) 52

X+24

2X
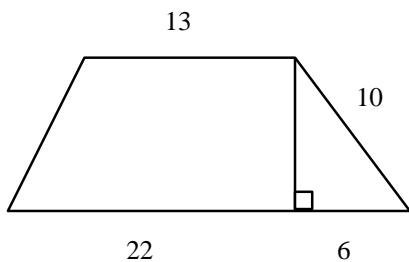
For problems 9 - 11 use the diagram.

A   E

65

45

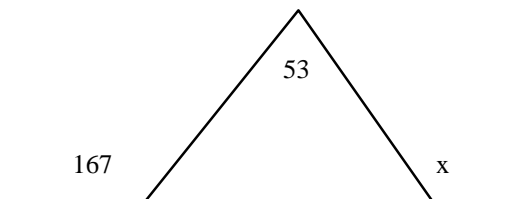B   C   D

9. m∠ ACB = ?   a) 70   b) 45   c) 110   d) 65

10. m∠ ACD = ?   a) 65   b) 110   c) 115   d) 45

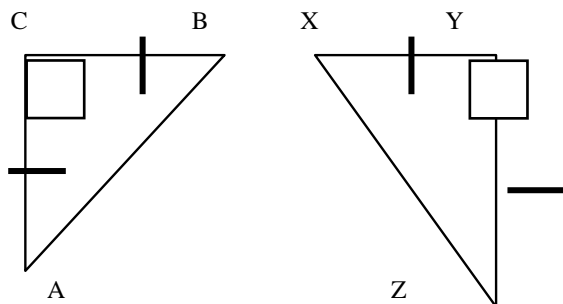11. m ∠ CAE = ?   a) 45   b) 110   c) 70   d) 135

12. x = ?   a) 114   b) 167   c) 53   d) 66
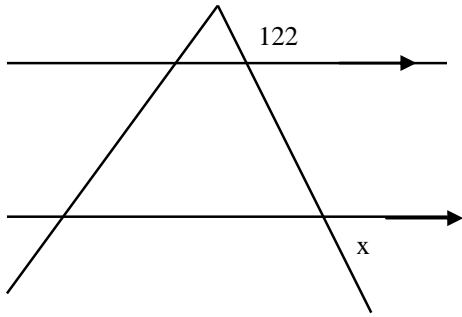
53

167   x

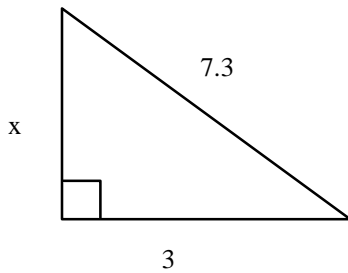13. x = ?   a) 32   b) 148   c) 122   d) 58

122

x

14. Two sides of a triangle are 3 and 8. What is the range of possible values for the length of side "x"

    a)   x = square root of 73   b)   3 < x < 8
    c)   5 < x < 11   d) x = 22
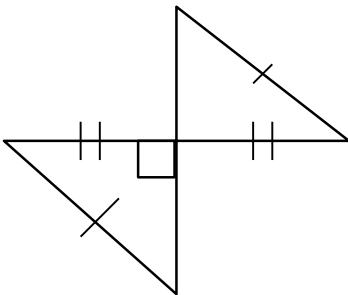
15. Solve the following polygon for "x".
    a) 6.7   b) 4.3
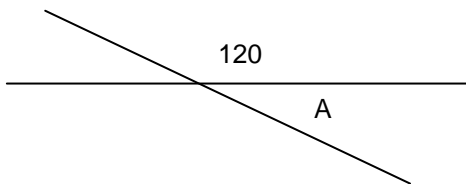   c) 7.9   d) 5.2

7.3

x

3

16. In the figure at the figure below how would you prove that the two triangles are congruent ?
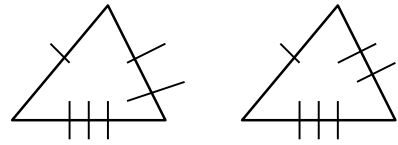
    a)   ASA   b) HL   c) HA   d) SSS

17. Solve for A.

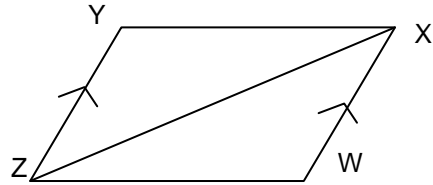   a)   40   b) 50   c) 60   d) 70

120

A

18. How would you prove that the triangles are congruent?
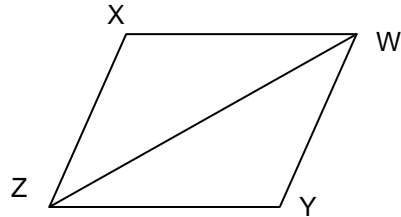   a)   HL   b) ASA   c) SSS   d) SAS

19. In the figure below you could prove that triangle ZYX congruent to triangle XWZ by
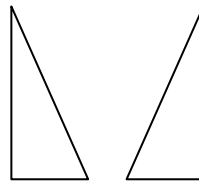
    a)   ASA   b) AAS   c) HL   d) not congruent

Y   X

Z   W

20. In the parallelogram below how could you prove that triangle WYZ is congruent to triangle ZXW?

a) ASA   b) ASS   c) SSS   d) AAA

X   W

Z   Y

21. The transformation shown is an example of a:

    a) translation   b) rotation
    c) isometric   d) reflection

22. If triangle DOG is congruent to triangle CAT then which of the following is true?

    a)   DG = CA   b) DO = AT
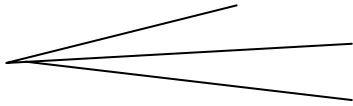   c)   GO = AC   d) DG = CT

23. Find the midpoint of the segment connecting the points (1,3) and (5,9).

   a)   (3,6)   b) (2,7)   c) (4,5)   d) (2,3)

For problems 24 - 35 choose the appropriate description to match the given picture.

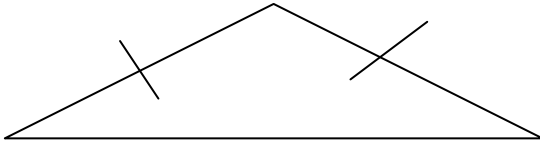24. a) adjacent angles   b) supplementary angles
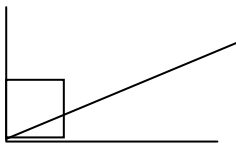
c) complementary angles   d) vertical angle

34. a) scalene angles   b) corresponding angles
c) alternate interior angles   d) exterior angles

This angle

This angle

25. a) perpendicular lines   b) corresponding angles
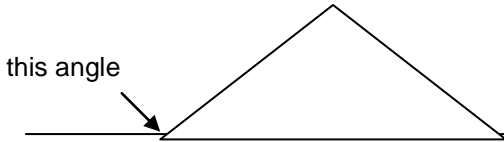c) alternate interior angles   d) vertical angles

35. a) isosceles triangle   b) scalene triangle
c) equilateral triangle   d) obtuse triangle
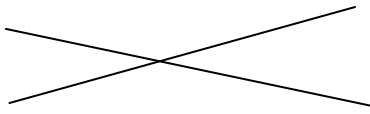
26. a) right triangle   b) scalene triangle
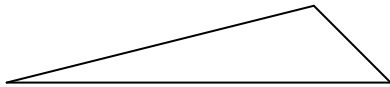c) isosceles triangle   d) equilateral triangle

36. Adjacent angles:
  a)   are complementary
  b)   share common interior points
  c)   are supplementary
  d)   share a common side

27. a) complementary angles   b) obtuse angle
c) corresponding angles   d) supplementary angles

38. When reflecting the point (4,2) about the x axis the coordinates of the reflected point are:

  a)   (-4,2)   b) (4,-2)   c) (-4,-2)   d) (4,2)

28. a) straight angle   b) exterior angle
c) right angle   d) acute angle

this angle

39. When reflecting the point (4,2) about the y axis the coordinates of the reflected point are:

  a)   (-4,2)   b) (4,-2)   c) (-4,-2)   d) (4,2)

30. a) isosceles triangle   b) scalene triangle
c) prism   d) right triangle

40. If $\triangle OGD \cong \triangle HAT$ then $\triangle DOG \cong$

  a) $\triangle THA$ b) $\triangle TAH$ c) $\triangle OGD$ d) $\triangle GDO$

31. a) straight angle   b) acute angle
c) obtuse angle   d) complementary angle

41. Calculate the slope of line segment AB
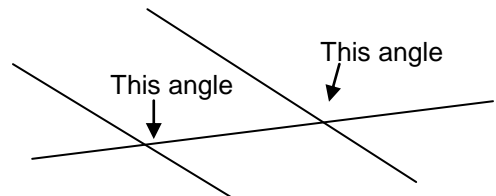
  a)   4/1   b) 1/4   c) 2/1   d) 1/2

(3,1)

(-1,0)
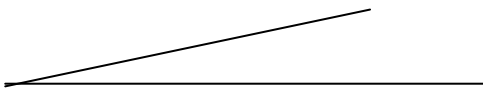
32. a) complementary angles   b) alternate interior angles
c) corresponding angles   d) supplementary angles

This angle

This angle
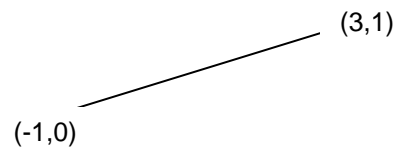
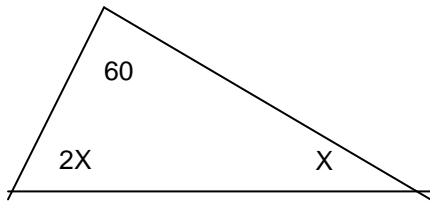**42.** What is the length of the third side of a triangle whose other two sides are 5 and 13?

  a)   5 < x < 13   b) 5 < x < 18
  c)   8 < x < 13   d) 8 < x < 18

33. a) parallel lines   b) straight angle
c) acute angle   d) perpendicular lines

43. Find the measure of x

a) 23.5   b) 37   c) 40   d) 46
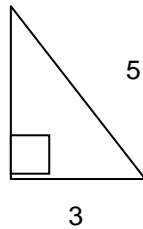

60

2X   X

50. What is the slope of the line passing through (2,0) and (3,5)
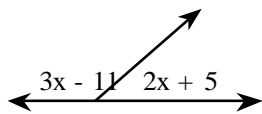
a) 5   b) -5   c) 2/5   d) 5/2

44. Find the perimeter

a)   4
b)   12
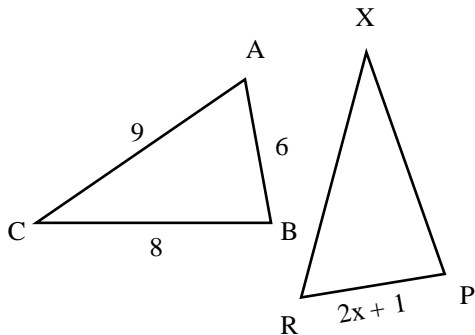c)   6
d)   15

5

3

45. Solve for x

3x - 1   2x + 5

a)   40.75   b) 16   c) 49   d) 37.2

46. Triangle ABC is congruent to triangle RPX
    Solve for x

X

A

9

6

C

8   B

R   2x + 1   P

a) 2.5   b) 3.5   c) 4   d) 180

48. Write the converse of the statement "If two lines are parallel then the corresponding angles are congruent"

a)   If two line are parallel then the alternate interior angles are congruent.
b)   It two lines are parallel then the interior angles on the same side of the transversal are congruent.
c)   If the alternate interior angles are congruent then the line are parallel
d)   If the corresponding angles are congruent then the two line are parallel