

QUIZ 2 REVIEW

Find the value of x.

1) $x = 96^\circ$

2) $x = 118^\circ$

$$\begin{array}{r} 180 \\ - 62 \\ \hline 118 \end{array}$$

3) $x = 128^\circ$

$$\begin{array}{r} 180 \\ - 52 \\ \hline 128 \end{array}$$

4) $x = 146^\circ$

$$\begin{array}{r} 180 \\ - 34 \\ \hline 146 \end{array}$$

Solve for x.

5)
$$\begin{array}{r} 5 + 18x = 70 + 25 \\ 5 + 18x = 95 \\ - 5 \\ \hline 18x = 90 \\ x = 5 \end{array}$$

6)
$$\begin{array}{r} 119 = 7x + 4 + 73 \\ 119 = 7x + 77 \\ - 77 \\ \hline 42 = 7x \\ \frac{42}{7} = \frac{7x}{7} \\ x = 6 \end{array}$$

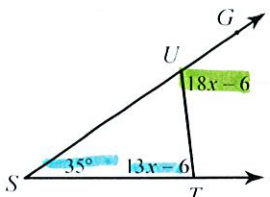
7)
$$\begin{array}{r} 4x + 3 + 30 + 111 = 180 \\ 4x + 144 = 180 \\ 4x = 36 \\ \frac{4x}{4} = \frac{36}{4} \\ x = 9 \end{array}$$

8)
$$\begin{array}{r} 24x + 4 = 51 + 49 \\ 24x + 4 = 100 \\ 24x = 96 \\ \frac{24x}{24} = \frac{96}{24} \\ x = 4 \end{array}$$

9)
$$\begin{array}{r} 8x + 19 = 75 + 2x + 16 \\ 8x + 19 = 2x + 91 \\ - 2x \\ \hline 6x + 19 = 91 \\ 6x = 72 \\ x = 12 \end{array}$$

10)
$$\begin{array}{r} 10x + 10 = 6x + 15 + 35 \\ 10x + 10 = 6x + 50 \\ - 6x \\ \hline 4x + 10 = 50 \\ 4x = 40 \\ x = 10 \end{array}$$

11)



$$18x - 6 = 13x + 29$$

$$-13x \quad -13x$$

$$5x - 6 = 29$$

$$5x = 35$$

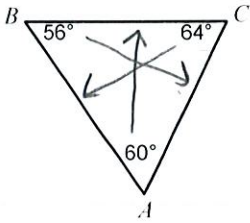
$$\frac{5x}{5} = \frac{35}{5}$$

$$x = 7$$

$x = 7$

Name the longest and shortest side in each triangle.

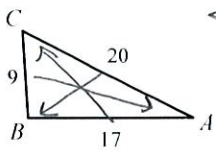
13)



CA - shortest
AB - longest

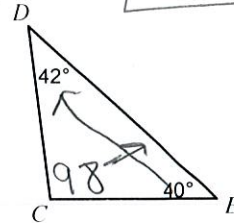
Name the largest and smallest angle in each triangle.

15)



$\angle B$ largest
 $\angle A$ shortest

14)



DE longest
DC shortest

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

17) 17, 10, 6 $10 + 6 \geq 17$ NO!

18) 11, 8, 15 $11 + 8 \geq 15$ yes!

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

19) 10, 8 $10 - 8 = 2$
 $10 + 8 = 18$
 $2 < x < 18$

20) 11, 6 $11 - 6 = 5$
 $11 + 6 = 17$
 $5 < x < 17$

State if the three side lengths form an acute, obtuse, or right triangle.

21) 9 km, 8 km, 10 km
 $c^2 < a^2 + b^2$
 $10^2 < 9^2 + 8^2$
 $100 < 145$
Acute

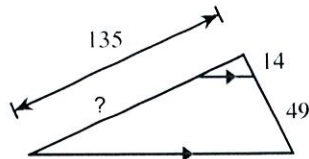
22) 4 in, 12 in, 13 in
 $c^2 > a^2 + b^2$
 $13^2 > 4^2 + 12^2$
 $169 > 16 + 144$
 $169 > 160$
Obtuse

Find the missing length indicated.

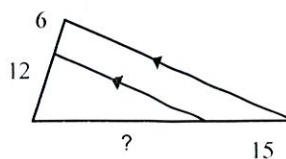
23) $\frac{x}{8} = \frac{26}{13}$
 $13x = 208$
 $\frac{13x}{13} = \frac{208}{13}$
 $x = 16$

24) $\frac{x}{28} = \frac{55}{35}$
 $35x =$

25)

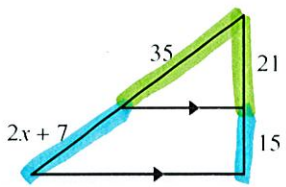


26)



Solve for x.

27)



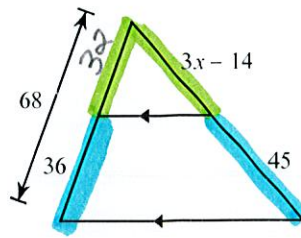
$$\frac{35}{2x+7} = \frac{21}{15}$$

$$525 = 42x + 147$$

$$378 = 42x$$

$$\boxed{x = 9}$$

28)



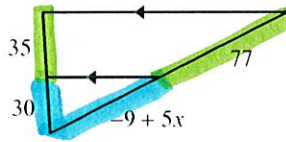
$$\frac{32}{36} = \frac{3x-14}{45}$$

$$1440 = 108x - 504$$

$$1944 = 108x$$

$$\boxed{18 = x}$$

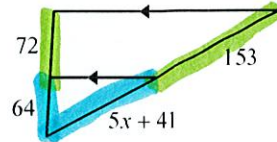
29)



$$\frac{35}{30} = \frac{77}{-9+5x}$$

$$\boxed{x = 15}$$

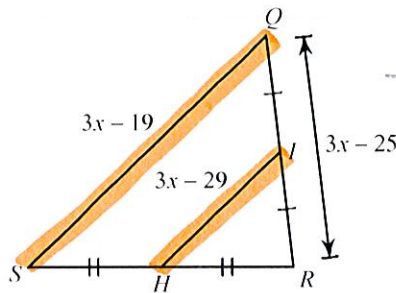
30)



$$\frac{72}{64} = \frac{153}{5x+41}$$

$$\boxed{x = 19}$$

31)



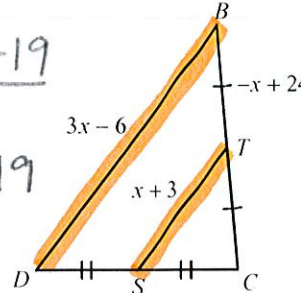
$$\frac{3x-29}{1} = \frac{3x-19}{2}$$

$$6x-58 = 3x-19$$

$$3x = 39$$

$$\boxed{x = 13}$$

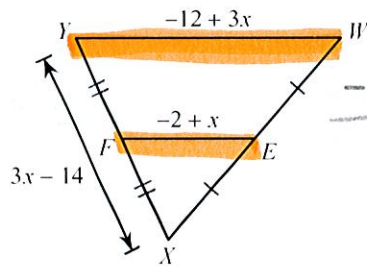
32)



$$\frac{x+3}{1} = \frac{3x-6}{2}$$

$$\boxed{x = 12}$$

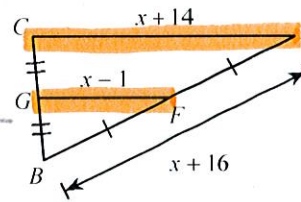
33)



$$\frac{-2+x}{1} = \frac{-12+3x}{2}$$

$$\boxed{x = 8}$$

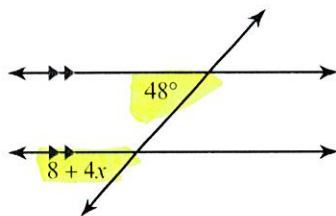
34)



$$\frac{x-1}{1} = \frac{x+14}{2}$$

$$\boxed{x = 16}$$

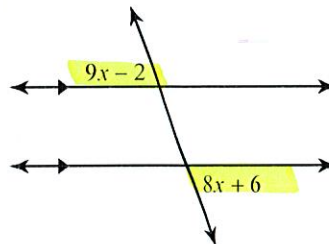
35)



$$48 = 8 + 4x$$

$$\boxed{x = 10}$$

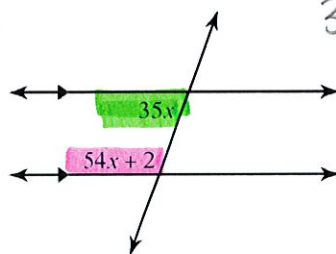
36)



$$9x-2 = 8x+6$$

$$\boxed{x = 8}$$

37)

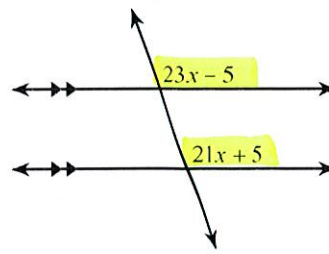


$$35x + 54x + 2 = 180$$

$$89x + 2 = 180$$

$$\boxed{x = 2}$$

38)

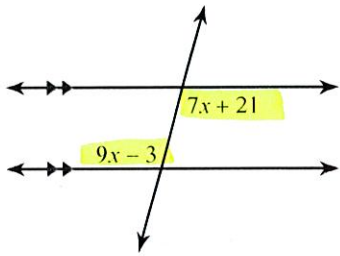


$$23x-5 = 21x+5$$

$$2x = 10$$

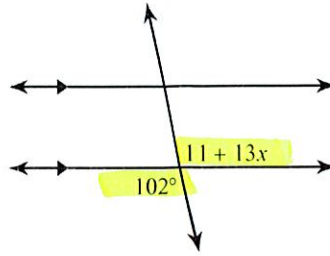
$$\boxed{x = 5}$$

39)



$$9x - 3 = 7x + 21 \quad (40)$$

$$\boxed{x = 12}$$



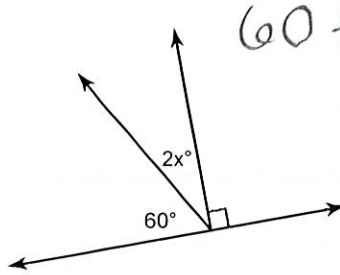
$$102 = 11 + 13x$$

$$91 = 13x$$

$$\boxed{x = 7}$$

Find the value of x.

41)

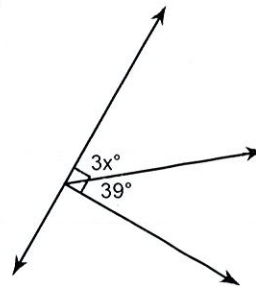


$$60 + 2x = 90$$

$$2x = 30$$

$$\boxed{x = 15}$$

42)

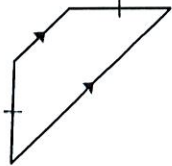


$$3x + 39 = 90$$

$$\boxed{x = 17}$$

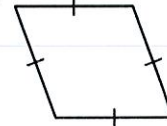
State the most specific name for each figure.

43)



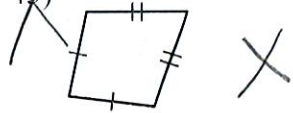
Isosceles trapezoid

44)

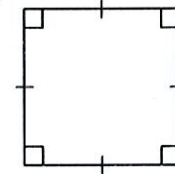


Rhombus

45)

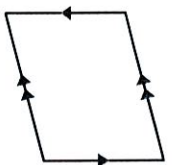


46)



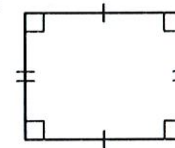
square

47)



parallelogram

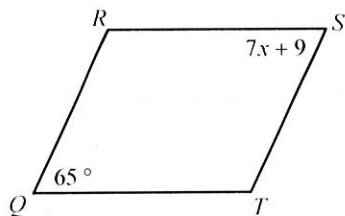
48)



rectangle

Solve for x. Each figure is a parallelogram.

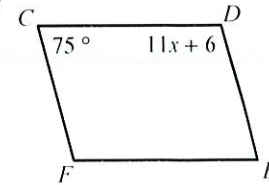
49)



$$65 = 7x + 9$$

$$\boxed{x = 8}$$

50)

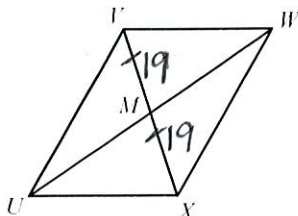


$$75 + 11x + 6 = 180$$

$$\boxed{x = 9}$$

51) $MX = 19$

$VX = 11x + 5$

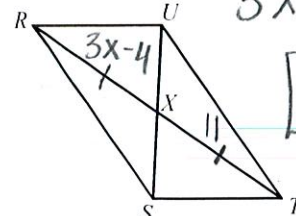


$$19 + 19 = 11x + 5$$

$$\boxed{x = 3}$$

52) $TX = 11$

$XR = 3x - 4$



$$3x - 4 = 11$$

$$\boxed{x = 5}$$