

Term 1 Review

Date _____ Period _____

UNIT 1.1 ANGLES

Evaluate each expression.

1) $-2 - -4 - (-2 - |-2|)$

2) $\frac{15}{3+2} - 1^3$

Name the set or sets to which each number belongs.

3) $-\frac{15}{5}$

4) $\frac{75}{250}$

Rational or Irrational?

5) $\sqrt{413} + \frac{42}{7}$

6) $\frac{3}{15} + \sqrt{81}$

7) $\pi\sqrt{225}$

8) $\frac{95}{5} \cdot \sqrt{729}$

Simplify the radical expression.

9) $\sqrt{200x^3y^3}$

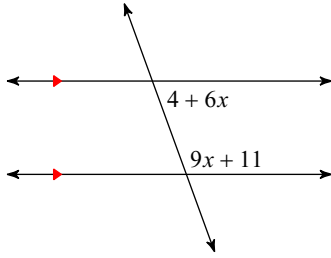
10) $\sqrt{70x}$

11) $\sqrt{196uv^3}$

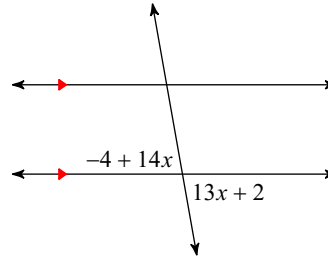
12) $\sqrt{72x^2y^2}$

Find the measure of BOTH angles indicated AND state the angle relationship.

13)



14)



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

15) Endpoint: $(-7, -1)$, midpoint: $(10, -1)$

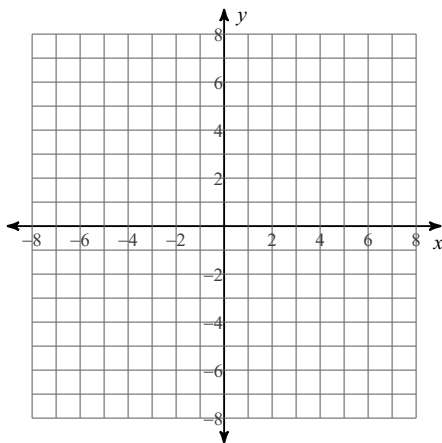
16) Endpoint: $(-10, 3)$, midpoint: $(4, 10)$

17) Determine the point that is $\frac{1}{3}$ the distance from the endpoint $(12, 10)$ of the segment with endpoints $(12, 10)$ and $(-3, 1)$.

Determine if the quadrilateral is a parallelogram.

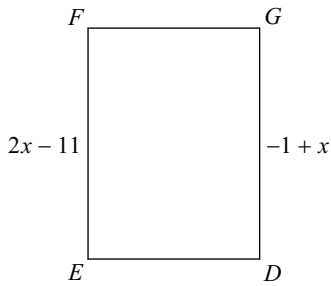
18) Let quadrilateral ABCD have vertices $A(-2, 0)$, $B(6, 1)$, $C(1, 2)$ and $D(7, 3)$.

19) Justify your answer using at least TWO properties of parallelograms.

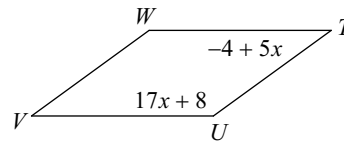


Find the measurement indicated in each parallelogram.

20) Find EF



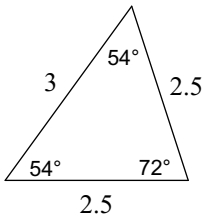
21) Find $m\angle T$



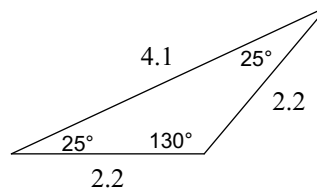
UNIT 1.2 TRIANGLES

Classify each triangle by its angles and sides.

22)

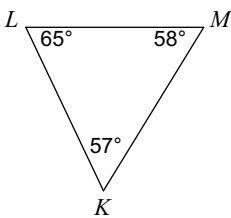


23)

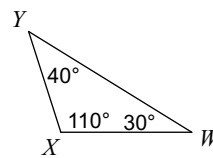


Order the sides of each triangle from shortest to longest.

24)

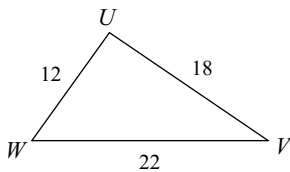


25)

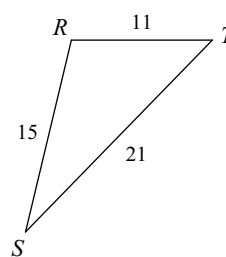


Order the angles in each triangle from smallest to largest.

26)



27)



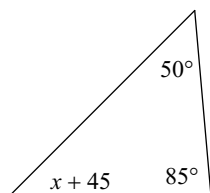
State if the three numbers can be the measures of the sides of a triangle.

28) 12, 6, 12

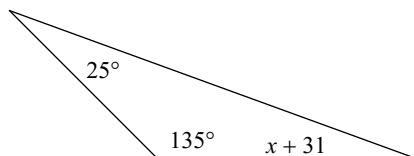
29) 9, 7, 16

Solve for x .

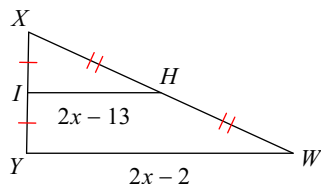
30)



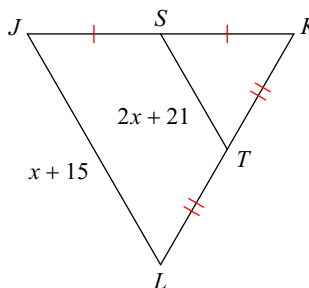
31)



32)

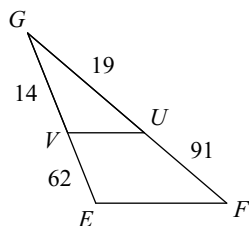


33)



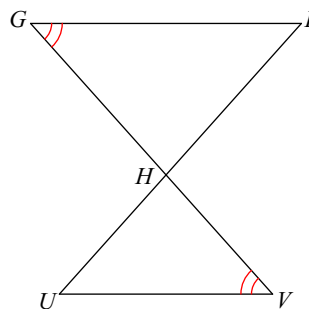
State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.

34)



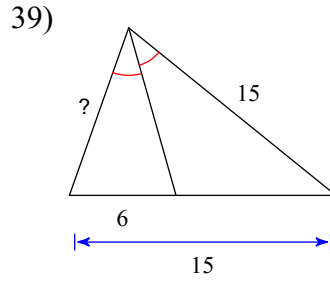
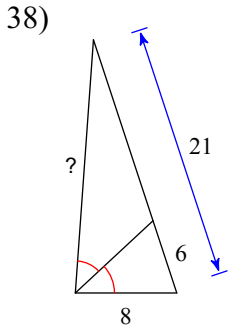
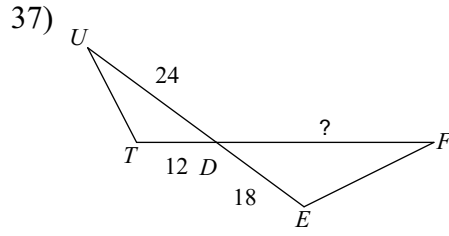
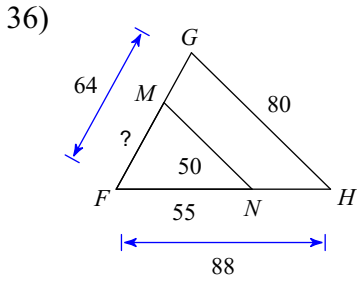
$\triangle GFE \sim$ _____

35)



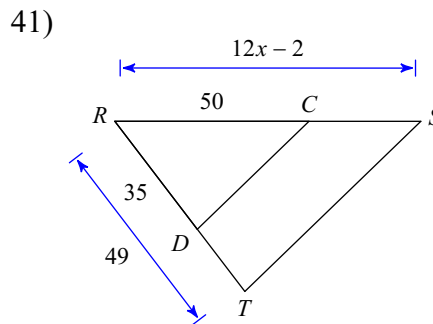
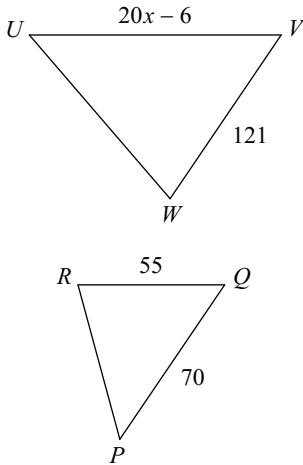
$\triangle HGF \sim$ _____

Find the missing length. The triangles in each pair are similar.

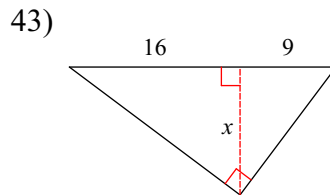
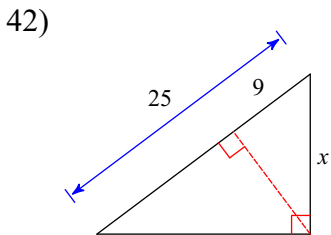


Solve for x . The triangles in each pair are similar.

40) $\triangle WVU \sim \triangle RQP$



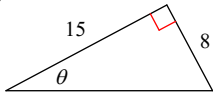
Find the missing length indicated.



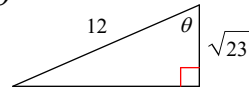
UNIT 1.3 TRIGONOMETRY

Find the value of the trig function indicated.

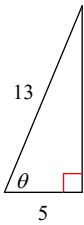
44) $\cos \theta$



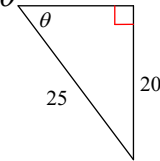
45) $\sin \theta$



46) $\tan \theta$

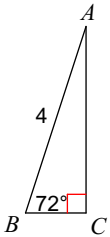


47) $\cos \theta$

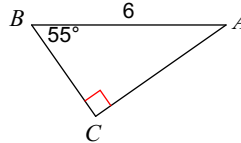


Solve each triangle. Round answers to the nearest tenth.

48)



49)



Draw and label a triangle, then find the missing information using trig functions.

50) A kite with a string 125 feet long makes an angle of 42° with the ground. Assuming the string is straight, how high is the kite?

51) A tree 13 meters high casts a 15.2 meter shadow. Find the angle of elevation of the sun.