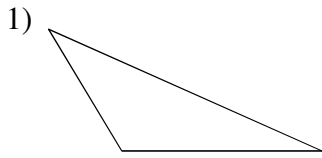


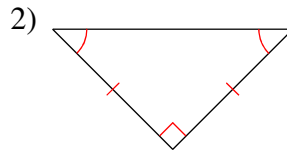
Classifying Triangles by Sides and/or Angles

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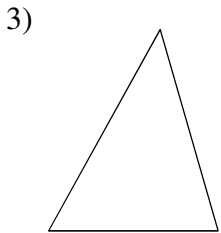
Classify each triangle by its sides. Equal sides and equal angles, if any, are indicated in each diagram.



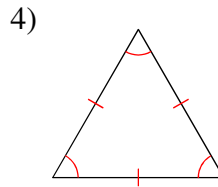
- A) scalene
- B) equilateral
- C) isosceles



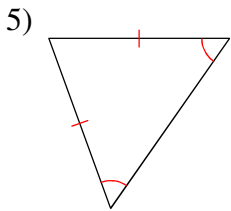
- A) equilateral
- B) isosceles
- C) scalene



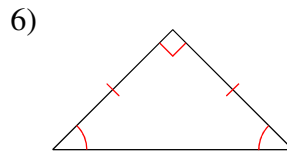
- A) scalene
- B) isosceles
- C) equilateral



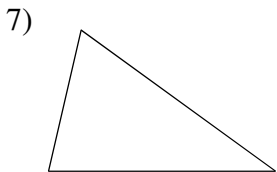
- A) scalene
- B) equilateral
- C) isosceles



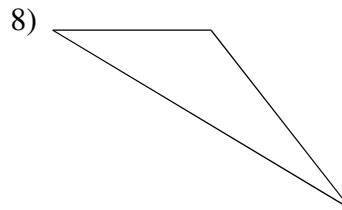
- A) equilateral
- B) isosceles
- C) scalene



- A) isosceles
- B) equilateral
- C) scalene

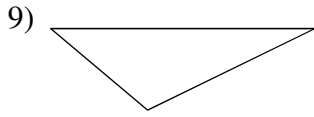


- A) scalene
- B) isosceles
- C) equilateral

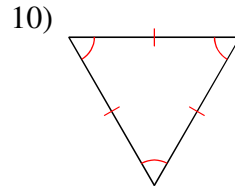


- A) isosceles
- B) equilateral
- C) scalene

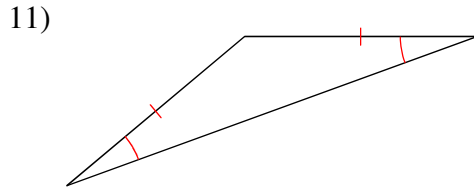
Classify each triangle by its angles.



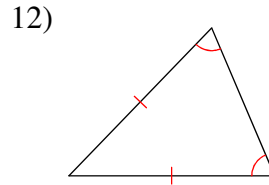
- A) right
- B) obtuse
- C) acute
- D) equiangular



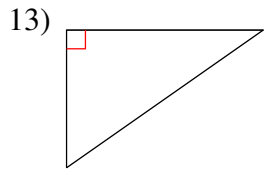
- A) acute
- B) right
- C) equiangular
- D) obtuse



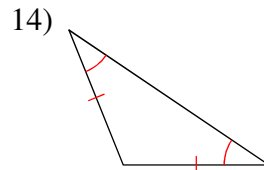
- A) obtuse
- B) equiangular
- C) acute
- D) right



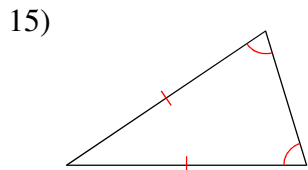
- A) acute
- B) obtuse
- C) right
- D) equiangular



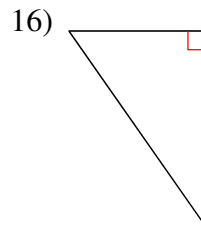
- A) acute
- B) right
- C) obtuse
- D) equiangular



- A) right
- B) equiangular
- C) obtuse
- D) acute



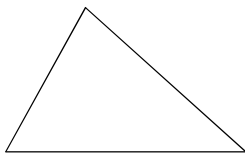
- A) obtuse
- B) acute
- C) right
- D) equiangular



- A) acute
- B) right
- C) equiangular
- D) obtuse

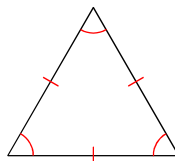
Classify each triangle by its angles and sides. Equal sides and equal angles, if any, are indicated in each diagram.

17)



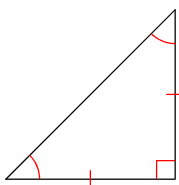
- A) right isosceles
- B) obtuse scalene
- C) acute scalene
- D) obtuse isosceles

18)



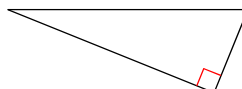
- A) obtuse scalene
- B) equilateral
- C) obtuse isosceles
- D) acute isosceles

19)



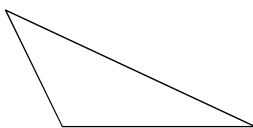
- A) acute isosceles
- B) acute scalene
- C) equilateral
- D) right isosceles

20)



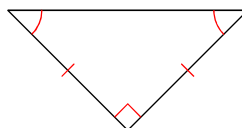
- A) obtuse scalene
- B) right scalene
- C) acute scalene
- D) acute isosceles

21)



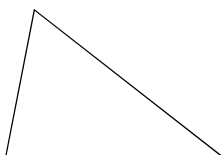
- A) obtuse isosceles
- B) obtuse scalene
- C) right scalene
- D) equilateral

22)



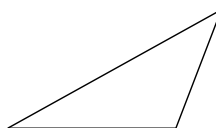
- A) equilateral
- B) obtuse scalene
- C) acute isosceles
- D) right isosceles

23)



- A) right scalene
- B) right isosceles
- C) acute scalene
- D) obtuse isosceles

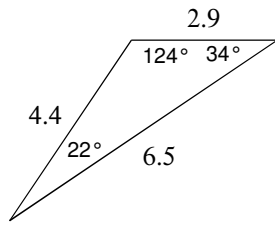
24)



- A) right isosceles
- B) obtuse scalene
- C) equilateral
- D) right scalene

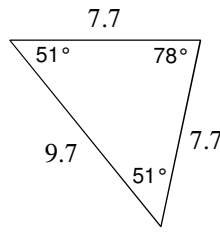
Classify each triangle by its angles and sides.

25)



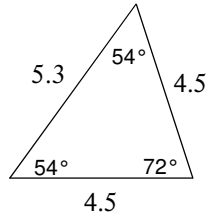
- A) acute isosceles
- B) obtuse scalene
- C) equilateral
- D) right isosceles

26)



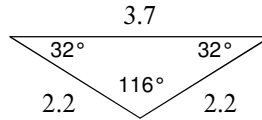
- A) acute isosceles
- B) equilateral
- C) obtuse isosceles
- D) right isosceles

27)



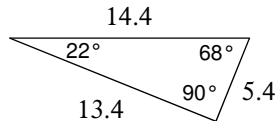
- A) acute isosceles
- B) equilateral
- C) acute scalene
- D) obtuse isosceles

28)



- A) right isosceles
- B) acute scalene
- C) obtuse scalene
- D) obtuse isosceles

29)



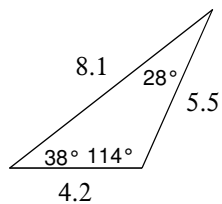
- A) right isosceles
- B) acute scalene
- C) equilateral
- D) right scalene

30)



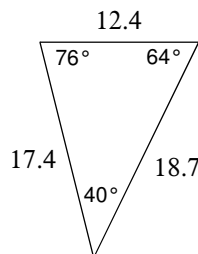
- A) acute scalene
- B) obtuse scalene
- C) obtuse isosceles
- D) right scalene

31)



- A) equilateral
- B) acute isosceles
- C) obtuse scalene
- D) acute scalene

32)



- A) acute isosceles
- B) right scalene
- C) acute scalene
- D) obtuse isosceles

Draw the triangle. Then, find x and the measure of each side of the triangle.

33) Triangle KLM is equilateral with $KM = d + 2$, $LM = 12 - d$, and $KL = 4d - 13$.

34) Triangle ABC is equilateral with $AB = 3x - 2$, $BC = 2x + 4$, and $CA = x + 10$.

35) Triangle DEF is isosceles, angle D is the vertex angle, $DE = x + 7$, $DF = 3x - 1$, and $EF = 2x + 5$.

36) Triangle FGH is equilateral with $FG = x + 5$, $GH = 3x - 9$, and $FH = 2x - 2$.

37) Triangle LMN is isosceles, angle L is the vertex angle, $LM = 3x - 2$, $LN = 2x + 1$, and $MN = 5x - 2$.

Find the measures of the sides of triangle RST, sketch the triangle, and classify the triangle by its sides.

38) R(-1,-3), S(4,4), T(8,-1)

39) R(0, 2), S(2, 5), T(4, 2)

40) R(1, 3), S(4, 7), T(5, 4)

Answers to Classifying Triangles by Sides and/or Angles

- 1) A 2) B 3) A 4) B
5) B 6) A 7) A 8) C
9) B 10) C 11) A 12) A
13) B 14) C 15) B 16) B
17) C 18) B 19) D 20) B
21) B 22) D 23) C 24) B
25) B 26) A 27) A 28) D
29) D 30) C 31) C 32) C
- 33) $d=5$; each side measures 7 34) $x = 6$; each side measure = 16
35) $x = 4$; $DE = 11$; $DF = 11$; $EF = 13$ 36) $x = 7$; $HF = 12$; $GH = 12$; $FG = 12$
37) $x = 3$; $LN = 7$; $LM = 7$; $NM = 13$
38) $RS = \sqrt{74}$; $ST = \sqrt{41}$, $RT = \sqrt{85}$; RST is scalene because the sides are all different measures
39) $RS = \sqrt{13}$; $ST = \sqrt{13}$; $TR = 4$; the triangle is isosceles because 2 sides are congruent
40) $RS = 5$; $ST = \sqrt{10}$; $TR = \sqrt{17}$; the triangle is scalene because all sides are different measures