

Name: Key

Date: _____ Period: _____

Math 7 Unit 9 Study Guide: Geometric Properties

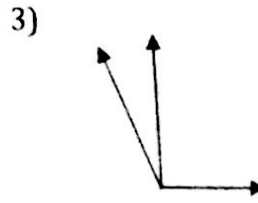
Classify the following angles as acute, obtuse, right, or straight, complementary, supplementary, vertical, or adjacent.



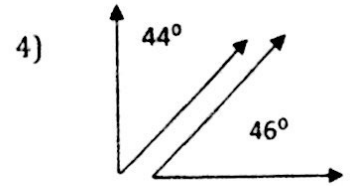
Obtuse



Acute

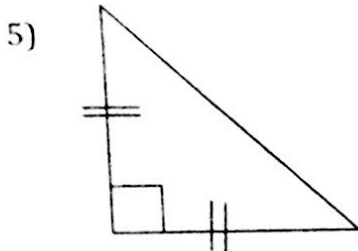


Adjacent



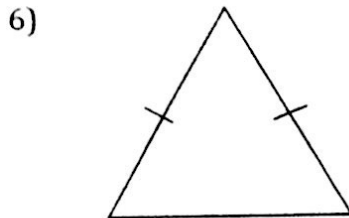
Complementary

Classify the following triangles as scalene, equilateral, and isosceles then right, acute, or obtuse.



Isosceles

Right



Isosceles

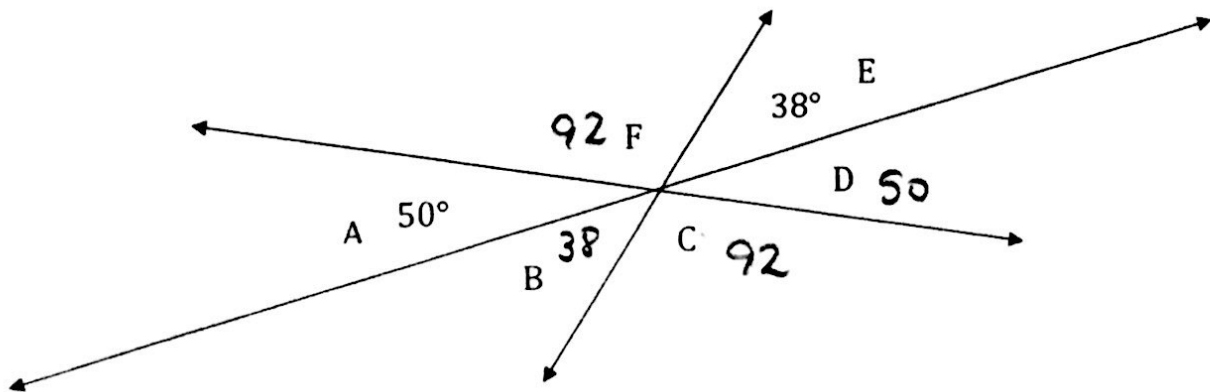
Acute



Scalene

Obtuse

Find the missing measurements.



8) $\angle B = \underline{38^\circ}$

9) $\angle C = \underline{92^\circ}$

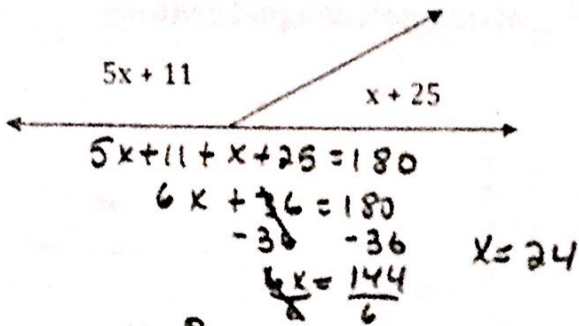
10) $\angle D = \underline{50^\circ}$

11) $\angle F = \underline{92^\circ}$

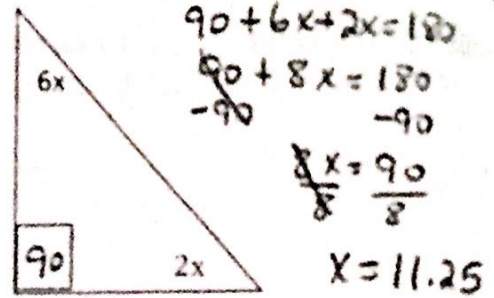
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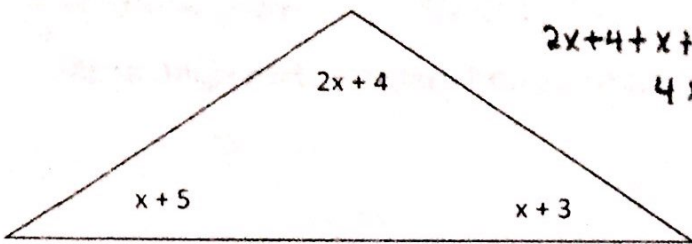
12) $x = 24^\circ$



13) $x = 11.25^\circ$

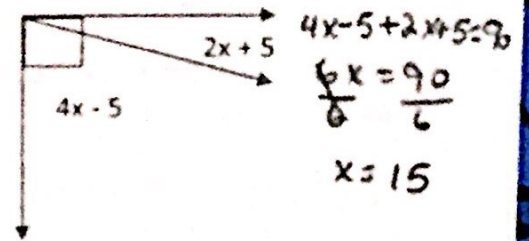


14) $x = 42^\circ$

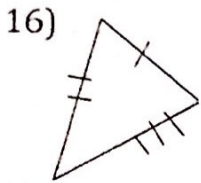


$2x + 4 + x + 5 + x + 3 = 180$
 $4x + 12 = 180$
 $-12 -12$
 $4x = 168$
 $x = 42$

15) $x = 15^\circ$

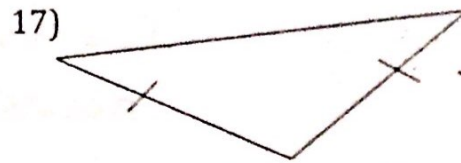


Classify the following triangles as scalene, equilateral, and isosceles then right, acute, or obtuse.



Scalene

Acute



Isosceles

Obtuse

Will the given side lengths make a triangle? Yes or No

18) 2, 6, 8 NO $2 + 6 = 8 = 8$

19) Given side lengths of 11m and 9m, what is a possible side to form a triangle?

- 22m 20m 7m 2m
 $9 + 11 = 20 < 22$ $9 + 11 = 20 = 20$ $9 + 7 = 16 > 11$ $9 + 2 = 11 = 11$

20) Given side lengths of 1.3m and 1.7m, what is NOT a possible side to form a triangle?

- 2.5m 1.3m 0.5m 3m
 $1.3 + 1.7 = 3 > 2.5$ $1.3 + 1.3 = 2.6 > 1.3$ $1.3 + 0.5 = 1.8 > 1.7$ $1.3 + 1.7 = 3 = 3$