Math 3   Name:_____

Unit 1.1 Angles PRACTICE

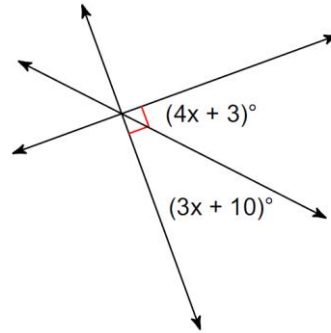**Find (a) the complement and (b) the supplement of each angle.**

1) 30°   2) 60°   3) 45°   4) 18°   5) 54°   6) 89°

Find the measure of each angle.

7)

$(3x + 1)°$ $(2x + 9)°$

8)

$(4x + 3)°$

$(3x + 10)°$
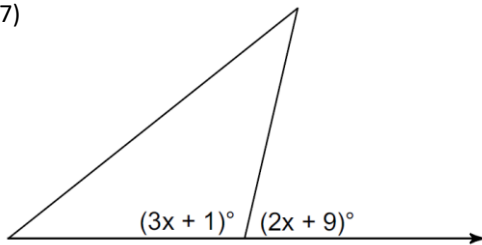
9) Supplementary angles with measures $10m + 7$ and $7m + 3$ degrees.

10) Supplementary angles with measures $6x - 4$ and $8x - 12$ degrees.

11) Complementary angles with measures $9z + 6$ and $3z$ degrees.

Answer each question.

12) If an angle measures $x°$, how can we represent its complement?

13) If an angle measures $x°$, how can we represent its supplement?

Perform each calculation.

14) $62° \, 18' + 21° \, 41'$ 15) $75° \, 15' + 83° \, 32'$ 16) $71° \, 18' - 47° \, 29'$

17) $47° \, 23' - 73° \, 48'$ 18) $90° - 51° \, 28'$ 19) $180° - 124° \, 51'$

20) $90° - 72° \, 58'11"$ 21) $90° - 36° \, 18' \, 47"$

Convert each angle measure to decimal degrees. Round to the nearest thousandth of a degree.

22) 20°54′

23) 38° 42′

24) 91° 35′54″

25) 34°51′35″

26) 274° 18′59″

27) 165° 51′9″

Convert each angle measure to degrees, minutes, and seconds.

28) 31.4296°

29) 59.0854°

30) 89.9004°

31) 102.3771°

32) 178.5994°

33) 122.6853°

Find the angle of smallest positive measure coterminal with each angle.

34) $-40°$

35) $-98°$

36) $-125°$

37) $-203°$

38) 539°

39) 699°

40) 850°

41) 1000°

Write an expression that generates all angles coterminal with each angle. Let n represent any integer.

42) 30°

43) 45°

44) 135°

45) 270°

46) $-90°$

47) $-135°$

48) Concept check:
Which two of the following are not coterminal with $r°$?

A) $360° + r°$

B) $r° - 360°$

C) $360° - r°$

D) $r° + 180°$