

Trig 5.1

Convert angle measurements d/m/s and decimals

Find the number of degrees in a given number of rotations

Identify coterminal angles

Identify reference angles

initial side

terminal side

quadrantal angle

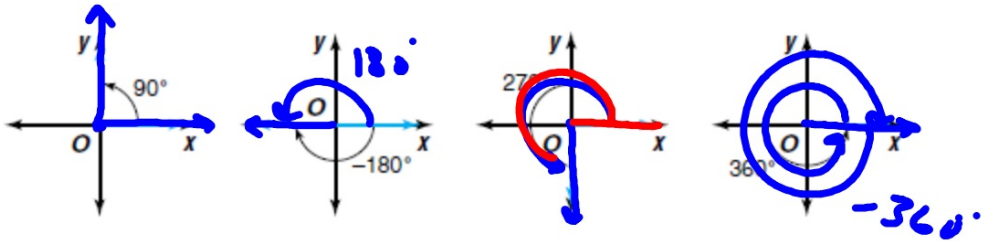
clockwise

counterclockwise

whiteboards

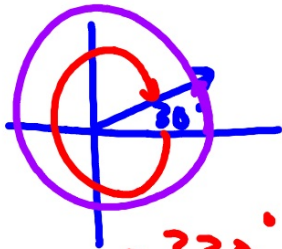
CCW reflex

If the terminal side of an angle that is in standard position coincides with one of the axes, the angle is called a **quadrantal angle**. In the figures below, all of the angles are quadrantal.



Identify all angles that are coterminal with each angle. Then find one positive angle and one negative angle that are coterminal with each angle.

37. 30° 38. -45° 39. 113° 40. 217° 41. -199° 42. -305°

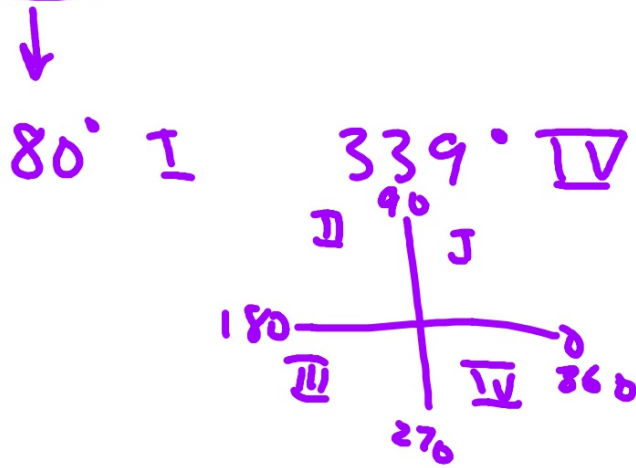


-330°
 390°

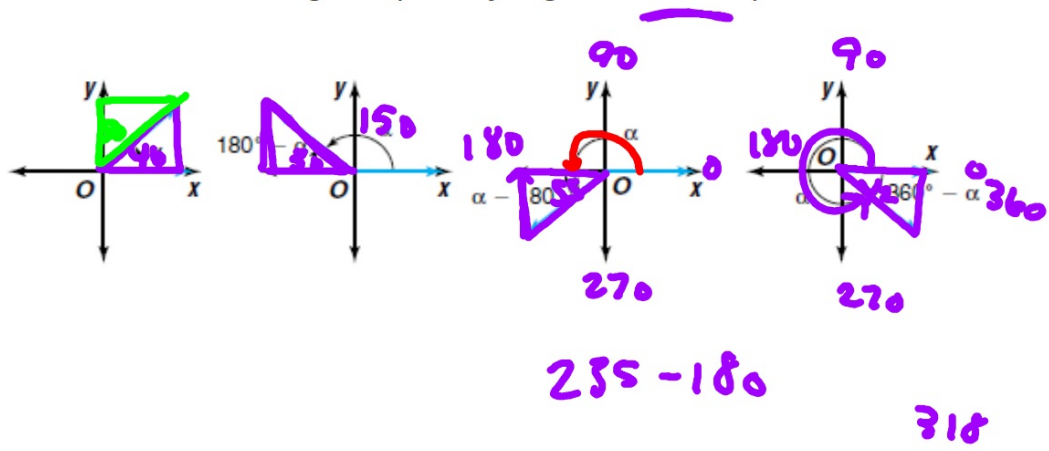
$$n = \text{integer } 30^\circ + 360n$$

If each angle is in standard position, determine a coterminal angle that is between 0° and 360° . State the quadrant in which the terminal side lies.

45. 400° 46. -280° 47. 940° 48. 1059° 49. -624° 50. -989°



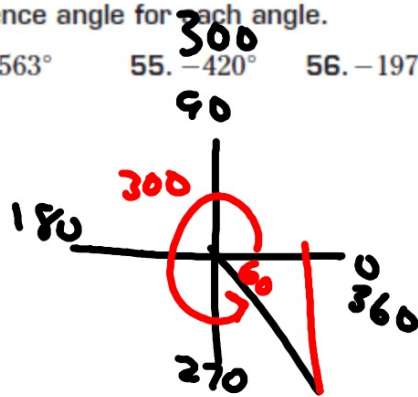
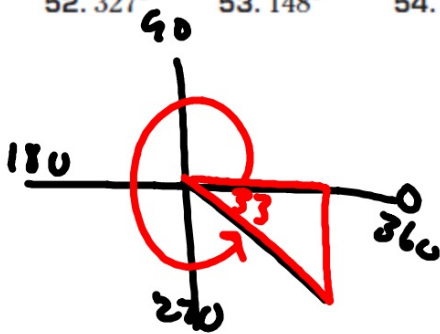
Reference angles (always go to x-axis)



1. Sketch (quadrant)
2. Reference triangle
3. From x-axis

Find the measure of the reference angle for each angle.

52. 327° 53. 148° 54. 563° 55. -420° 56. -197° 57. 1045°



58. Name four angles between 0° and 360° with a reference angle of 20° .

