

# Practice 13-2

## Angles and the Unit Circle

Sketch each angle in standard position.

- |                  |                  |                 |                  |                  |
|------------------|------------------|-----------------|------------------|------------------|
| 1. $30^\circ$    | 2. $60^\circ$    | 3. $100^\circ$  | 4. $135^\circ$   | 5. $210^\circ$   |
| 6. $270^\circ$   | 7. $330^\circ$   | 8. $-30^\circ$  | 9. $-90^\circ$   | 10. $-190^\circ$ |
| 11. $-150^\circ$ | 12. $-330^\circ$ | 13. $-45^\circ$ | 14. $315^\circ$  | 15. $-180^\circ$ |
| 16. $120^\circ$  | 17. $-120^\circ$ | 18. $145^\circ$ | 19. $-145^\circ$ | 20. $-355^\circ$ |

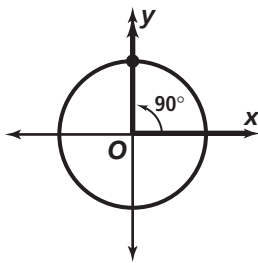
Find the measure of an angle between  $0^\circ$  and  $360^\circ$  coterminal with each given angle.

- |                  |                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|------------------|
| 21. $-100^\circ$ | 22. $-60^\circ$  | 23. $-225^\circ$ | 24. $-145^\circ$ | 25. $372^\circ$  |
| 26. $-15^\circ$  | 27. $482^\circ$  | 28. $484^\circ$  | 29. $-20^\circ$  | 30. $421^\circ$  |
| 31. $409^\circ$  | 32. $-38^\circ$  | 33. $376^\circ$  | 34. $-210^\circ$ | 35. $387^\circ$  |
| 36. $390^\circ$  | 37. $660^\circ$  | 38. $440^\circ$  | 39. $-170^\circ$ | 40. $370^\circ$  |
| 41. $-700^\circ$ | 42. $458^\circ$  | 43. $480^\circ$  | 44. $406^\circ$  | 45. $-120^\circ$ |
| 46. $460^\circ$  | 47. $-222^\circ$ | 48. $-330^\circ$ | 49. $-127^\circ$ | 50. $377^\circ$  |

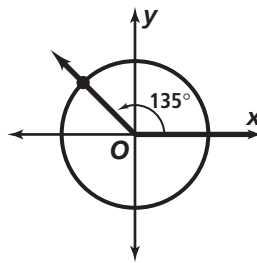
Find the exact values of the cosine and sine of each angle. Then find the decimal equivalents. Round your answers to the nearest hundredth.

- |                  |                 |                  |                 |                  |
|------------------|-----------------|------------------|-----------------|------------------|
| 51. $45^\circ$   | 52. $225^\circ$ | 53. $-225^\circ$ | 54. $-45^\circ$ | 55. $330^\circ$  |
| 56. $-330^\circ$ | 57. $150^\circ$ | 58. $-150^\circ$ | 59. $300^\circ$ | 60. $-300^\circ$ |
| 61. $240^\circ$  | 62. $120^\circ$ | 63. $-90^\circ$  | 64. $360^\circ$ | 65. $720^\circ$  |

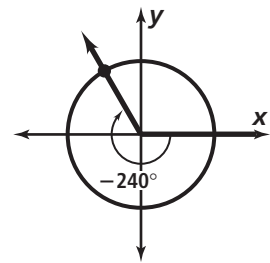
66.



67.

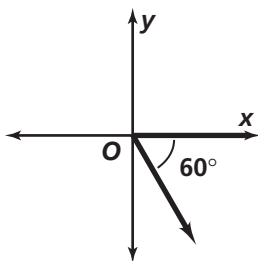


68.

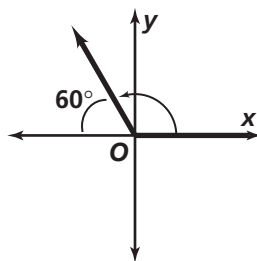


Find the measure of each angle in standard position.

69.



70.



71.

