Answer Key
Testname: 6.3-6.7 PRACTICETEST

1) C

2) $\left(-1, \dfrac{5}{4}\pi\right)$

3) $\left(3, -\dfrac{5}{3}\pi\right)$

4) $\left(\dfrac{9}{2}, \dfrac{-9\sqrt{3}}{2}\right)$

5) $\left(\dfrac{-7\sqrt{2}}{2}, \dfrac{7\sqrt{2}}{2}\right)$

6) $\left(6, \dfrac{5\pi}{3}\right)$

7) $(5, \pi)$

8) $r = \dfrac{9}{\cos\theta}$

9) $r = \dfrac{-10}{(6\cos\theta - 9\sin\theta)}$

10) $y = 8$

11) $x^2 + y^2 = 5x + 2y$

12) $2\sqrt{29}$

13) $2(\cos 270° + i\sin 270°)$

14) $8\left(\cos\dfrac{7\pi}{6} + i\sin\dfrac{7\pi}{6}\right)$

15) $\dfrac{3\sqrt{2}}{2} + \dfrac{3\sqrt{2}}{2}i$

16) $\dfrac{3}{2} + \dfrac{-3\sqrt{3}}{2}i$

17) $20(\cos 30° + i\sin 30°)$

18) $24\sqrt{2}\left(\cos\dfrac{5\pi}{4} + i\sin\dfrac{5\pi}{4}\right)$

19) $\dfrac{8}{3}\left(\cos\dfrac{\pi}{3} + i\sin\dfrac{\pi}{3}\right)$

20) $\dfrac{\sqrt{2}}{3}\left(\cos\dfrac{7\pi}{4} + i\sin\dfrac{7\pi}{4}\right)$

21) $8 + 8\sqrt{3}i$

22) $-64$

23) $2(\cos 60° + i\sin 60°), 2(\cos 240° + i\sin 240°)$

24) $-14\mathbf{i} - 9\mathbf{j}$

25) D

26) $\mathbf{u} = \dfrac{12}{13}\mathbf{i} + \dfrac{5}{13}\mathbf{j}$

27) $\mathbf{v} = -10\mathbf{i} - 9\mathbf{j}$

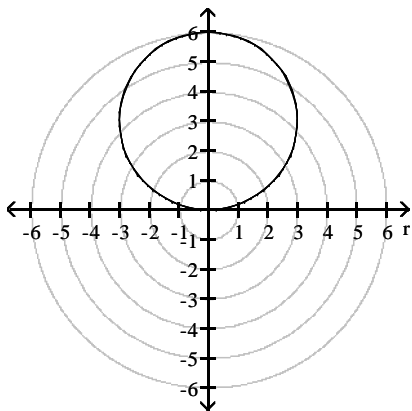28) C

29) $\mathbf{v} = -5\mathbf{i} + 5\sqrt{3}\mathbf{j}$

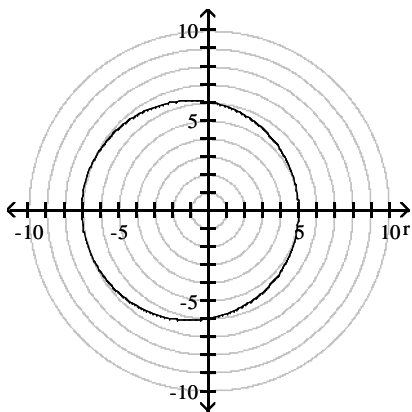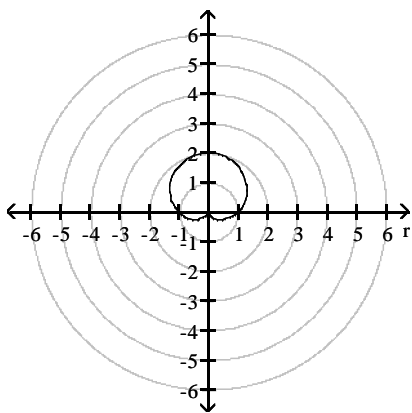30) $\dfrac{\sqrt{2}}{2} + \dfrac{\sqrt{6}}{2}i, -\dfrac{\sqrt{2}}{2} - \dfrac{\sqrt{6}}{2}i$

31) −82

32)



33)



34)

35)