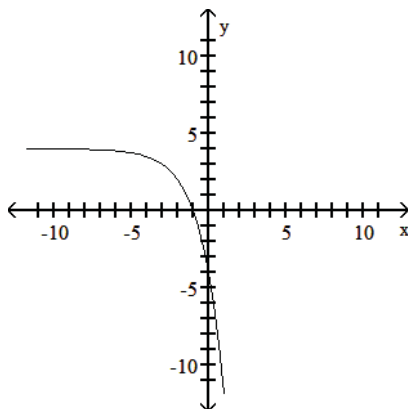


Answer Key

Testname: SPRING FINAL EXAM REVIEW (1)

- 1) $\{81, -81\}$
- 2) $\{27\}$
- 3) $\left\{-\frac{3}{14}\right\}$
- 4) $\{2\}$
- 5)



domain of f : $(-\infty, \infty)$; range of f : $(-\infty, 4)$;
horizontal asymptote: $y = 4$

- 6) 4.9% compounded semiannually
- 7) $\{10\}$
- 8) $\{3\}$
- 9) $\sqrt{5}$
- 10) no triangle
- 11) 29 cans
- 12) $c = 84.86$, $A = 62.4^\circ$, $B = 7.6^\circ$
- 13) $b = 5.25$, $A = 25.9^\circ$, $C = 119.1^\circ$
- 14) 18.13 ft
- 15) two triangles
 $A_1 = 14.75^\circ$, $C_1 = 155.25^\circ$, $c_1 = 36.16$ or
 $A_2 = 165.25^\circ$, $C_2 = 4.75^\circ$, $c_2 = 7.15$
- 16) 70.92
- 17) $d = -5 \cos\left(\frac{\pi}{5} t\right)$
- 18) simple harmonic; 6 m; $\frac{2}{3} \pi$ sec; $\frac{3}{2\pi}$ oscillations/sec
- 19) 1.44 mi
- 20) $C = 90^\circ$, $b = 3.46$, $c = 4$
- 21) $c = 65.58$, $A = 48.5^\circ$, $B = 6.5^\circ$
- 22) $A = 125.1^\circ$, $B = 30.8^\circ$, $C = 24.1^\circ$
- 23) $y^2 = 25 - 10x$
- 24) $\left(\frac{-5\sqrt{2}}{2}, \frac{5\sqrt{2}}{2}\right)$
- 25) $\left(4\sqrt{2}, -\frac{\pi}{4}\right)$
- 26) $r \cos^2 \theta = 4 \sin \theta$

Answer Key

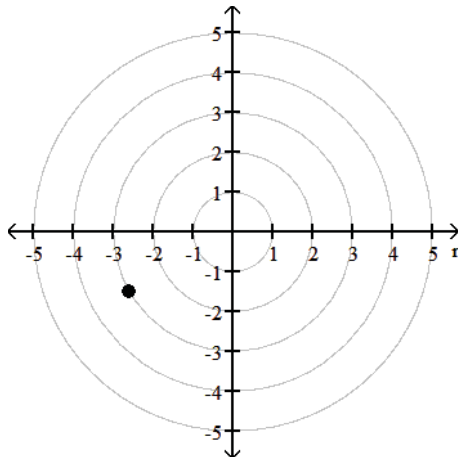
Testname: SPRING FINAL EXAM REVIEW (1)

27) $x^2 + y^2 = 10y$

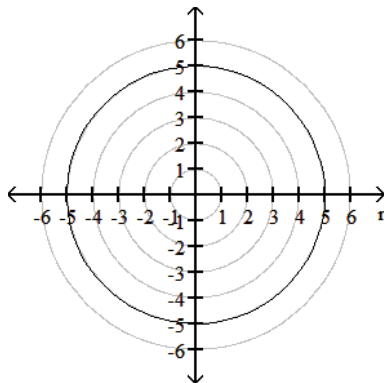
28) $-5i - 9j$

29) $v = 14j$

30)



31)



$x^2 + y^2 = 25$; circle, radius 5,
center at pole

32) $\left(3\sqrt{2}, \frac{3\pi}{4}\right)$

33) $\frac{y^2}{16} - \frac{x^2}{100} = 1$

34) $y + 3 = \frac{2}{3}(x - 2)$ and $y + 3 = -\frac{2}{3}(x - 2)$

35) $(x - 2)^2 = -8(y + 2)$

36) 12,282

37) 6400

38) $40,095x^8y^4$

39) 24

40) $a_n = 2n - 3$

41) -44

42) 36

Answer Key

Testname: SPRING FINAL EXAM REVIEW (1)

43) 13

44) $30 \text{ ft}^3/\text{ft}$

45) 18

46) -11

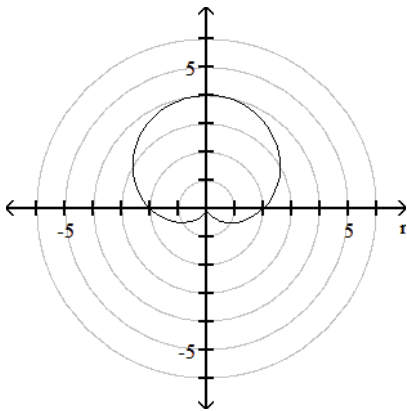
47) 6.161 yr

48) $\cot \theta = \frac{8}{3}$

49) 46.82 m

50) 261.9°

51)



cardioid

52) $\frac{x^2}{9} - \frac{y^2}{4} = 1$

53) $\frac{x^2}{32} + \frac{y^2}{36} = 1$

54) -945

55) -45

56) 338,724

57) 11.11 hours

58) \$25,649.12

59) 13.9 yr

60) 12 m

61) $\frac{x^2}{5} + \frac{y^2}{9} = 1$

62) 1

63) 28.93

64) $\frac{5456}{3}$

65) 2