

FALL 2000 Exam Answers

EXAM 1: 1. F 2. F 3. F 4. G 5. $112.42^{\circ}, 292.42^{\circ}$ 6. $a = 5, b = \sqrt{2}, c = -\sqrt{2}$
7. $x = \frac{17}{2}, y = \frac{17\sqrt{3}}{2}$ 8. Arc length = 90.50 yds 9. $d = 58$ ft 10. Distance = 70.2 ft

EXAM 2: 1. $\cos 2 = 23/25$ 2. $\theta = \pi/3 + 2n$ or $5\pi/3 + 2n$ 3. $\tan^{-1} \frac{3}{5} = \frac{1}{3}$
4. Verify 5. $\sin(\theta + \phi) = \frac{20 + 3\sqrt{11}}{30}$ 6. $\theta = 0, 2\pi/3, 4\pi/3$ 7. Bearing = S 63° E
8. Distance = 515.9 ft 9. Length = 4253 ft

EXAM 3: 1. $\sqrt{74} \text{ cis } \tan^{-1} \frac{5}{7}$ 2. 122.0° 3. $\langle 49, -89 \rangle$ 4. $f(x) = \frac{3(x+4)(x-1)}{(x+2)(x-1)}$
5. 182.6 lbs 6. VA: $x = -4, x = 1$; HA: $y = -1$; x-int: $-3, 2$; y-int: $-3/2$ 7. a) 37
7. b) $53^{\circ} 30'$ 8. $a \perp b$ 9. 39 mi/hr