

TRIGONOMETRY – PRACTICE EXAM 1 (Solutions) – Chapters 1 – 3

1. a) $\frac{\sqrt{581}}{21}$ b) $-\frac{3\sqrt{35}}{10}$

2. a) $-\frac{5\sqrt{37}}{37}$ b) $\frac{\sqrt{111}}{6}$

3. a) $\beta = 8.5^\circ$ b) $\cot(51^\circ 46' 11'')$

4. a) 2 b) $-\frac{\sqrt{3}}{3}$

5. a) 29.0 yd b) 61.2 yd

6. a) 181° b) 160 mi

7. a) $\frac{1}{2}$ b) 1.259π

8. a) 101 in b) 1030 in^2

9. a) $\alpha = 164.4430^\circ$ b) $\theta = 3.441 \text{ radians}$

10. a) $12\pi \text{ radians/sec} \approx 37.7 \text{ radians/sec}$ b) $180\pi \text{ ft/sec} \approx 565.5 \text{ ft/sec}$