

Name _____

- You have 15 minutes
- No calculators
- Show sufficient work

1. (3 points) Given an acute angle θ for which $\cos(\theta) = 2/3$, evaluate the following quantities.

(a) $\sin(\theta)$

(b) $\cos(\pi + \theta)$

(c) $\sin\left(\frac{\pi}{2} - \theta\right)$

2. (4 points) Determine the domain of the given function.

$$f(x) = \frac{\sqrt{x^2 + 4}}{\sqrt{25 - 4x} - \sqrt{x + 9}}$$

3. (3 points) Determine whether the following function is even, odd or neither. Give a very clear justification for your answer.

$$g(t) = \cos(t^3) - \sin(t^4)$$