

Name \_\_\_\_\_

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

1. (3 points) Given an acute angle  $\theta$  for which  $\cos(\theta) = \frac{3}{4}$ , evaluate the quantity  $\cos\left(\frac{3\pi}{2} - \theta\right)$ .

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

$$h(p) = \frac{\sqrt{p^2 + 100}}{\sqrt{3 - p} - \sqrt{3p - 5}}$$

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

$$w(t) = \cos(t^4 + t^3) - \cos(t^4 - t^3)$$