

Monday: Use properties of Logarithms to expand this expression and simplify where applicable

$$\log_3 \left(81x^5 \sqrt[3]{y^6} \right)$$

Tuesday

Determine whether this function is even, odd, or neither. Explain your process.

$$g(x) = 2x^3 - 3x$$

Wednesday

Identify the domain and range of each function in interval notation. Explain how you arrived at your answer:

$$f(x) = 4^x - 3$$

$$f(x) = -(x - 3)^2 + 2$$

$$f(x) = \sqrt{x - 5}$$

Thursday

An object is launched straight upward from ground level with an initial velocity of 50.0 feet per second. The height, h (in feet above ground level), of the object t seconds after the launch is given by the function $h(t) = -16t^2 + 50t$.

At **approximately** what value of t will the object have a height of 28.0 feet and be traveling downward?

- A 2.39 seconds
- B 1.84 seconds
- C 1.56 seconds
- D 0.73 seconds

Friday

A man is standing on level ground 50 feet away from the wall of a building. He looks up at a window on the building. The angle of elevation to the bottom of the window is 28.5° . He then looks up at the top of the building. The angle of elevation to the top of the building is 35° . What is the **approximate** distance between the bottom of the window and the top of the building?

- A 5.7 feet
- B 7.9 feet
- C 8.3 feet
- D 8.5 feet