

Answers to Worksheet 20 - MVT

- 1) $\{-1\}$ 2) $\{3\}$ 3) The function is not continuous on $[-3, -1]$
4) $\{-\sqrt{6}\}$ 5) The function is not continuous on $[-\pi, \pi]$ 6) $\left\{-\frac{3\pi}{4}, -\frac{\pi}{4}, \frac{\pi}{4}, \frac{3\pi}{4}\right\}$
7) MVT does not apply. f is not differentiable at 0
8) Rolle's does not apply. f is not differentiable at 0
9) Average speed was 75 mph.

By MVT the car's speed reached 75 mph at least once between 3:00 PM and 3:40 PM.

- 10) 88 11) -17