

Week 12 Questions and Answer Key

- Day 1, Limits, 1-5
- Day 2, 6-11
- Day 3, Test
- Day 4,
- Day 5,

$$1. \lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2} = 4$$

$$2. \lim_{x \rightarrow \infty} \frac{3x + 2}{x} = 3$$

$$3. \lim_{x \rightarrow 0} \frac{\sin x}{x} = 1$$

$$4. \lim_{x \rightarrow 2} (x^2 - 5x) = -6$$

$$5. \lim_{x \rightarrow -1} (2x^3 + 5x^2 - 2) = 1$$

$$6. \lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = 2$$

$$7. \lim_{x \rightarrow \frac{3}{2}} \frac{4x^2 - 9}{2x + 3} = 0$$

$$8. \lim_{x \rightarrow -1} \sqrt{2x + 3} = 1$$

$$9. \lim_{x \rightarrow 6} \sqrt{4 - x} = \text{no limit}$$

$$10. \lim_{x \rightarrow \infty} \frac{1}{2x} = 0$$

$$11. \lim_{x \rightarrow \infty} \frac{3x^2 - 5x + 2}{4x^2 + 8x - 11} = \frac{3}{4}$$