

# Math 1431

## Homework Assignment 1

PRINT your name and PeopleSoft ID number below.

**Name:** \_\_\_\_\_

**ID:** \_\_\_\_\_

### **Instructions:**

- Print out this file and complete the problems. You must do all the problems!
- Use a blue or black pen or a pencil.
- Write your solutions in the spaces provided.
- You must show your work to receive credit for a problem.
- Write your final answer in the space provided.
- Remember that your homework must be complete, neatly written and stapled.
- Submit the completed homework to your Teaching Assistant in lab on the due date.
- If you do not do all of the problems, then your recitation quiz from the previous Friday will automatically become a ZERO.

1.  $\lim_{x \rightarrow -4} (x^2 + 3x - 7) =$

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

3.  $\lim_{x \rightarrow 0} \left( x - \frac{3}{x} \right) =$

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

$$5. \lim_{x \rightarrow 2} \frac{x-2}{x^2 - 4} =$$

$$6. \lim_{h \rightarrow 0} h \left( 1 + \frac{2}{h} \right) =$$

$$7. \lim_{h \rightarrow 0} \frac{(3+h)^2 - 9}{h} =$$

$$8. \lim_{x \rightarrow 1} \frac{x-1}{\sqrt{x}-1} =$$

$$9. \lim_{t \rightarrow -1} \frac{t^2 + 3t + 2}{t^2 + 6t + 5} =$$

10.  $\lim_{t \rightarrow 1} \frac{t^2 + 6t + 5}{t^2 + 3t + 2} =$

11.  $\lim_{x \rightarrow -4} \left( \frac{3x}{x+4} + \frac{8}{x+4} \right) =$

12. Define  $f(x) = x^2 - 3x + 1$ .  $\lim_{x \rightarrow 1} \frac{f(x) - f(1)}{x - 1} =$

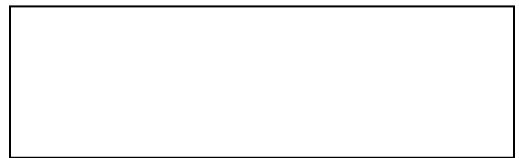
13. (Section 2.3: 16)

An empty rectangular box with a thin black border, positioned to the right of the text for item 13.

14. (Section 2.3: 26)

An empty rectangular box with a thin black border, positioned to the right of the text for item 14.

15. (Section 2.3: 36)

An empty rectangular box with a thin black border, positioned to the right of the text for item 15.

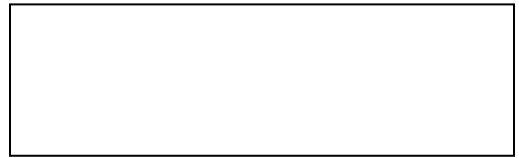
16. (Section 2.3: 41a)

An empty rectangular box with a thin black border, positioned to the right of the text for item 16.

17. (Section 2.3: 41b)

An empty rectangular box with a thin black border, positioned to the right of the text for item 17.

18. (Section 2.3: 41c)

An empty rectangular box with a thin black border, positioned to the right of the text for item 18.

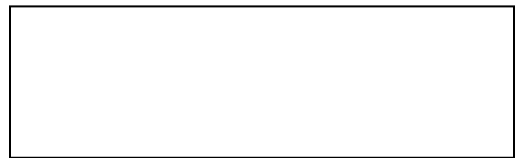
19. (Section 2.3: 42a)

An empty rectangular box with a thin black border, positioned to the right of the text for item 19.

20. (Section 2.3: 42b)

An empty rectangular box with a thin black border, positioned to the right of the text for item 20.

21. (Section 2.3: 42c)

An empty rectangular box with a thin black border, positioned to the right of the text for item 21.