

TEST BANK FOR

Applied Calculus for the Managerial Life and Social Sciences: A Brief Approach, 10th Edition, Soo T. Tan, ISBN-10: 1285464648, ISBN-13: 9781285464640

Chapter 1-8

Table of Contents

CHAPTER 1: PRELIMINARIES

CHAPTER 2: FUNCTIONS, LIMITS, AND THE DERIVATIVE

CHAPTER 3: DIFFERENTIATION

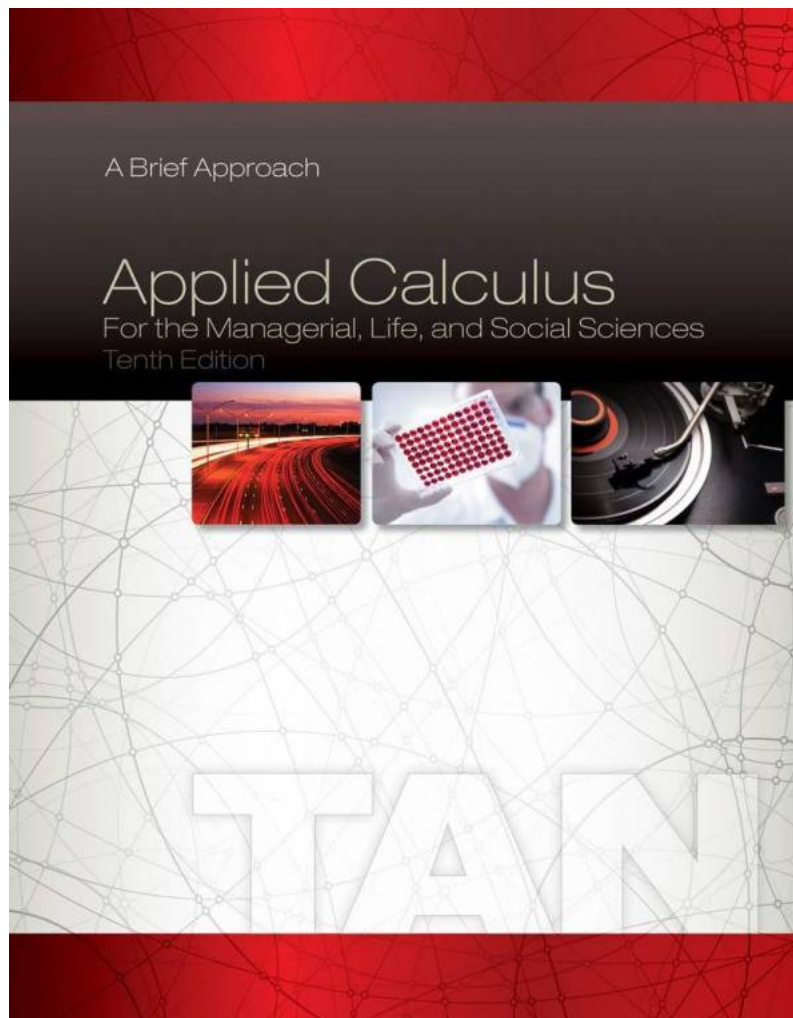
CHAPTER 4: APPLICATIONS OF THE DERIVATIVE

CHAPTER 5: EXPONENTIAL AND LOGARITHMIC FUNCTIONS

CHAPTER 6: INTEGRATION

CHAPTER 7: ADDITIONAL TOPICS IN INTEGRATION

CHAPTER 8: CALCULUS OF SEVERAL VARIABLES



chapter 1

Indicate whether the statement is true or false.

- ___ 1. Determine whether the statement is true or false.

The point $(-a, -b)$ is symmetric to the point $(a, -b)$ with respect to the y -axis.

- a. True
- b. False

ANSWER: True

- ___ 2. Determine whether the statement below is true for all real numbers b .

$$|b + 2| = |b| + 2$$

- a. True
- b. False

ANSWER: False

- ___ 3. Determine whether the statement is true or false.

The circle with equation $mx^2 + my^2 = a^2$ lies inside the circle with equation $x^2 + y^2 = a^2$ provided $m > 1$

- a. True
- b. False

ANSWER: True

- ___ 4. Suppose a and b are real numbers other than zero and that $a < b$. State whether the inequality is true or false.

$$\frac{1}{a} < \frac{1}{b}$$

- a. True
- b. False

ANSWER: False

- ___ 5. If $a < b$, then $a - c > b - c$.

- a. True
- b. False

ANSWER: False

- ___ 6. $-\frac{3}{4} < -\frac{7}{8}$

- a. True
- b. False

ANSWER: False

chapter 1

Indicate the answer choice that best completes the statement or answers the question.

___ 7. If the line passing through the points $(2, a)$ and $(3, -7)$ is parallel to the line passing through the points $(8, 9)$ and $(-1, a + 8)$, what is the value of a ?

- a. -8
- b. -12
- c. -5
- d. -10
- e. -7

ANSWER: a

___ 8. Determine whether the points $A(-2, 9)$, $B(4, -1)$, and $C(7, -6)$ lie on a straight line.

- a. no
- b. yes

ANSWER: a

___ 9. Determine whether the statement below is true for all real numbers a .

$$|a + 2| = |a| + 2$$

- a. False
- b. True

ANSWER: a

___ 10. Evaluate the expression.

$$\frac{|-11 + 9|}{|10 - 8|}$$

- a. 1
- b. 6
- c. 7
- d. 9
- e. 4

ANSWER: a

chapter 1

___ 11. Two ships leave port at the same time. Ship A sails north at a speed of 16 mph while ship B sails east at a speed of 24 mph.

- a. Find an expression in terms of the time t (in hours) giving the distance between the two ships.
b. Using the expression obtained in part (a), find the distance between the two ships 5 hr after leaving port.

a. $8\sqrt{13}t$ and 144.2

b. $8\sqrt{13}t$ and 139.2

c. $7\sqrt{13}t$ and 144.2

d. $9\sqrt{13}t$ and 149.2

e. $8\sqrt{13}t$ and 149.2

ANSWER: a

___ 12. Perform the indicated operations and simplify the expression.

$$\frac{\frac{4}{x} + \frac{5}{y}}{1 - \frac{4}{xy}}$$

a. $\frac{5y - 4x}{xy + 4}$

b. $\frac{5x + 4y}{xy}$

c. $\frac{5x + 4y}{xy - 4}$

d. $\frac{5y + 4x}{xy - 4}$

e. $\frac{5x - 4y}{xy - 4}$

ANSWER: c

___ 13. Find the real roots of the equation by factoring.

$$x^2 + 6x + 8 = 0$$

a. 3 and -2

b. 1 and -4

c. -3 and -3

d. 4 and -3

e. 4 and 2

ANSWER: e