

NOTE: This is an abbreviated, print sample of an online test. Questions answered online are graded automatically with solution detail and step-by-step feedback.

PRACTICE 1: CLEP CALCULUS EXAM

Course name: Calculus CLEP Calculus

Directions: Here we go. You've studied, you feel confident and ready to give a Practice Calculus CLEP Exam a try!

The actual Calculus CLEP Exam is administered on a computer, contains approximately 45 questions, and is limited to 90 minutes. This Practice Calculus CLEP Exam also contains 45 questions, but there is no time limit.

You may pause the Practice Calculus CLEP Exam as often as you need to. Click the "Resume" button to pick up where you left off.

We recommend that you work out the problems on paper and then enter your answer online once you're ready.

Once you're done, review the "Guide" for customized, step-by-step feedback.

Need Help? No Problem! Contact support@thinkwell.com with questions.

Question: 1

The position of a rocket in miles is given by the position function $p(t) = 2t^2 + 5t - 2$, where t is the time in seconds. What is the rocket's average speed over the time interval $[3, 6]$?

- 69.0 miles /second
- 16.7 miles /second
- 23.0 miles /second
- 43.7 miles /second

Question: 2

Consider the function,

$$f(t) = \begin{cases} t^2 + 1 & \text{if } -1 \leq t < 1 \\ -t + 1 & \text{if } 1 \leq t < 2 \\ -1 & \text{if } t > 2 \end{cases}$$

The set of points in the domain of f at which f is continuous is which of the following?

- $[-1, 1), [1, \infty)$
- $(-1, 1), [1, \infty)$
- $(-1, 1), (1, 2), (2, \infty)$
- $[-1, 1), (1, 2), (2, \infty)$
- $[-1, 2), (2, \infty)$

Question: 3

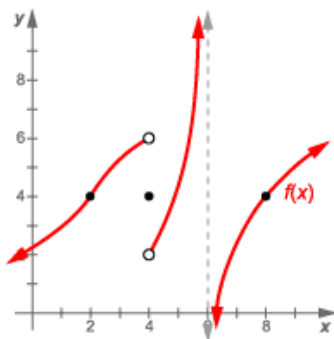
Given that $\lim_{x \rightarrow 0} \frac{(\sin x)^2}{x} = 0$, find the limit.

$$\lim_{x \rightarrow 0} \frac{1 - \cos x}{x}$$

- 1
 0
 $\frac{1}{2}$
 The limit does not exist

Question: 4

For what value(s) of x does the function in the graph not have a limit?



Enter your answer as $x = [\text{value}]$. For example, if the answer is 1, enter " $x = 1$ ".
 If there is more than one value, separate each value with a comma (ie: " $x = 1, 2$ ").

Question: 5

Determine, if it exists, $\lim_{x \rightarrow 0} \frac{x^2 - x}{\sqrt{x+1} - 1}$.

- 2
 -2
 1
 The limit does not exist.

Question: 6

Suppose you are given

$$f(x) = x^3 \text{ and } f'(x) = 3x^2.$$

Find the value of x , $1 < x < 2$, such that the slope of the tangent line at (x, x^3) is equal to the average rate of change between the points $(1, 1)$ and $(2, 8)$.

- $\frac{\sqrt{21}}{21}$
 7
 $\frac{\sqrt{21}}{3}$
 $\frac{4}{3}$

Question: 7

What is the equation of the line tangent to the curve $y = x^2 - 2x + 1$ at $(3, 4)$?

- $y - 4 = 4(x - 3)$
- $y - 3 = 4(x - 4)$
- $y - 4 = 6(x - 3)$
- $y = 0$

Question: 8

Suppose a particle's position is given by $f(t) = -2/t$, where t is measured in seconds and $f(t)$ is given in centimeters. At what time is the velocity of the particle equal to 4 cm/s?

- $t = 1/2$
- $t = \frac{1}{\sqrt{2}}$
- $t = \sqrt{2}$
- $t = 2$

Question: 9

Suppose a particle's position is given by $f(t) = \sqrt{2t + 5}$, where t is measured in seconds and $f(t)$ is given in centimeters. What is the velocity of the particle when $t = 2$?

- 1/2 cm/sec
- $\frac{1}{\sqrt{5}}$ cm/sec
- $\frac{1}{\sqrt{7}}$ cm/sec
- 1/3 cm/sec
- None of the above

Question: 10

Suppose $f(x) = (2x^2 - 1)(x + 1)$. Which of the following lines is tangent to f and parallel to the line $y = x + 2$?

- $y = x + 1$
- $y = x - 1/3$
- $y = x - 1$
- There are no tangent lines parallel to the given line.

Question: 11
