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| 1. Complete the table and use the result to estimate the limit. Round your answer to six decimal places.  ​  ​   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | *x* | 0.9 | 0.99 | 0.999 | 1.001 | 1.01 | 1.1 | |  |  |  |  |  |  |  |   ​   |  |  |  | | --- | --- | --- | |  | a. | 0.691667 | |  | b. | 0.441667 | |  | c. | 0.066667 | |  | d. | 0.566667 | |  | e. | –0.308333 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 2. Complete the table and use the result to estimate the limit. Round your answer to six decimal places.  ​  ​   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | *x* | 7.9 | 7.99 | 7.999 | 8.001 | 8.01 | 8.1 | |  |  |  |  |  |  |  |   ​   |  |  |  | | --- | --- | --- | |  | a. | –0.040000 | |  | b. | 0.090000 | |  | c. | ​–0.170000 | |  | d. | 0.070000 | |  | e. | –0.150000 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 3. Complete the table and use the result to estimate the limit. Round your answer to six decimal places.  ​  ​   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | *x* | –1.1 | –1.01 | –1.001 | –0.999 | –0.99 | –0.9 | |  |  |  |  |  |  |  |   ​   |  |  |  | | --- | --- | --- | |  | a. | 1.091641 | |  | b. | –1.216641 | |  | c. | –1.341641 | |  | d. | 1.174974 | |  | e. | 1.341641 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 4. Complete the table and use the result to estimate the limit.     |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  | –0.1 | –0.01 | –0.001 | 0.001 | 0.01 | 0.1 | |  |  |  |  |  |  |  |   ​   |  |  |  | | --- | --- | --- | |  | a. | –0.5 | |  | b. | 0 | |  | c. | 1 | |  | d. | 0.5 | |  | e. | –1 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 2.2.5 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.81 - Estimate a limit from a table of values | | *OTHER:* | Skill | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 5. Complete the table and use the result to estimate the limit.    ​   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | *x* | –0.1 | –0.01 | –0.001 | 0.001 | 0.01 | 0.1 | |  |  |  |  |  |  |  |   ​   |  |  |  | | --- | --- | --- | |  | a. | –1 | |  | b. | –0.5 | |  | c. | 0 | |  | d. | 0.5​ | |  | e. | 1 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 2.2.6 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.81 - Estimate a limit from a table of values | | *OTHER:* | Skill | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 6. Determine the following limit. (*Hint*: Use the graph to calculate the limit.)  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 8 | |  | b. | 2 | |  | c. | 6 | |  | d. | 4 | |  | e. | does not exist |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | 2.2.17 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.82 - Estimate the limit of a function from its graph | | *OTHER:* | Skill | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 7. Determine the following limit. (*Hint*: Use the graph to calculate the limit.)  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 5 | |  | b. | 1 | |  | c. | 0 | |  | d. | 4 | |  | e. | does not exist |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 2.2.18 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.82 - Estimate the limit of a function from its graph | | *OTHER:* | Skill | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 8. Let .  ​  Determine the following limit. (*Hint*: Use the graph to calculate the limit.)  ​  ​  ​ ​   |  |  |  | | --- | --- | --- | |  | a. | 6 | |  | b. | 4 | |  | c. | 2 | |  | d. | 0 | |  | e. | does not exist |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 2.2.19 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.82 - Estimate the limit of a function from its graph | | *OTHER:* | Skill | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 9. Let .  ​  Determine the following limit. (*Hint*: Use the graph to calculate the limit.)  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 4 | |  | b. | 9 | |  | c. | 1 | |  | d. | 3 | |  | e. | does not exist. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 2.2.20 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.82 - Estimate the limit of a function from its graph | | *OTHER:* | Skill | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 10. Determine the following limit. (*Hint*: Use the graph to calculate the limit.)  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –2 | |  | b. | 0 | |  | c. | –4 | |  | d. | 2 | |  | e. | does not exist |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 2.2.22 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.82 - Estimate the limit of a function from its graph | | *OTHER:* | Skill | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 11. A ring has a inner circumference of 6 centimeters. What is the radius of the ring? Round your answer to four decimal places.  ​   |  |  |  | | --- | --- | --- | |  | a. | 0.4775 centimeter | |  | b. | 1.9099 centimeters | |  | c. | 0.9549 centimeter | |  | d. | 1.3820 centimeters | |  | e. | 3.6476 centimeters |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | 2.2.67a | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.62 - Solve a linear equation in applications | | *OTHER:* | Application | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 12. A ring has a inner circumference of 8 centimeters. If the ring's inner circumference can vary between 7 centimeters and 10.5 centimeters how can the radius vary? Round your answer to five decimal places.  ​   |  |  |  | | --- | --- | --- | |  | a. | Radius can vary between 4.96474 centimeters and 11.17066 centimeters. | |  | b. | Radius can vary between 1.49271 centimeters and 1.82818 centimeters. | |  | c. | Radius can vary between 1.11408 centimeters and 1.67113 centimeters. | |  | d. | Radius can vary between 2.22817 centimeters and 3.34225 centimeters. | |  | e. | Radius can vary between 0.27324 centimeter and 3.77324 centimeters. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 2.2.67b | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.62 - Solve a linear equation in applications | | *OTHER:* | Application | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 13. A sphere has a volume of 2.92 cubic inches. What is the radius of the sphere? Round your answer to four decimal places.  ​   |  |  |  | | --- | --- | --- | |  | a. | 0.8867 inch | |  | b. | 1.4075 inches | |  | c. | 0.8349 inch | |  | d. | 1.6698 inches | |  | e. | 1.5144 inches |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | 2.2.68a | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.83 - Solve a cubic equation in applications | | *OTHER:* | Application | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |

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| 14. A sphere has a volume of 4.32 cubic inches. If the sphere's volume can vary between 3.82 cubic inches and 6.42 cubic inches , how can the radius vary? Round your answer to five decimal places.  ​   |  |  |  | | --- | --- | --- | |  | a. | Radius can vary between 0.96975 inch and 1.15296 inches. | |  | b. | Radius can vary between 1.53938 inches and 1.83022 inches. | |  | c. | Radius can vary between 0.51033 inch and 3.11033 inches. | |  | d. | Radius can vary between 1.73211 inches and 2.24550 inches. | |  | e. | Radius can vary between 0.95496 inch and 1.23801 inches. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 2.2.68b | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *LEARNING OBJECTIVES:* | CETF.LAED.11.62 - Solve a linear equation in applications | | *OTHER:* | Application | | *NOTES:* | Section 2.2 | | *DATE CREATED:* | 7/11/2017 8:25 AM | | *DATE MODIFIED:* | 7/11/2017 8:25 AM | |