

Core Competency #2 Assessment

Problem Solving

1. Suppose you are starting your senior year of high school and your family has limited means of income. Despite this fact, you have decided you want to go to college after high school but you have not decided where. You also recognize that having in-state tuition offers the financial advantage because colleges charge more tuition for non-residents of the state where they are located. Please define the problem.
 - A. Can I afford to attend the college in its location?
 - B. Do I want to attend a 2-year college or a 4-year college?
 - C. Does the college offer my program of study?
 - D. What is the transfer availability from the college?
2. Around the same time that your cell phone accidentally gets dropped in the pool, your contract with your current cell phone provider runs out. Going without a cell phone isn't an option since your family requires that you stay in touch when you are gone. You need to get a new cell phone and a new contract. Be sure to consider all the things most important to you (such as text messaging) and remember that you also need an affordable phone and plan. Which of the following scenarios would be the correct order of events needed to achieve your goal?
 - A. Choose carrier, determine the important functions and options you know you need and want, decide what plan to use, determine what you can afford, shop for a phone
 - B. Shop for a phone, determine the important functions and options you know you need and want, decide what plan to use, choose carrier, determine what you can afford
 - C. Determine what you can afford, determine the important functions and options you know you need and want, choose carrier, decide what plan to use, shop for a phone
 - D. Decide what plan to use, determine what you can afford, choose carrier, determine important functions and options you know you need and want, shop for a phone
3. You have decided to buy a new vehicle but are undecided as to which type of vehicle to choose. What steps would you take to make a decision?

- A. Look at vehicles to see which ones you find most attractive, comparison shop all local car lots, ask a car salesman to help guide you, and check with your bank for loan rates
 - B. Ask your friends and family members which vehicle they think would be right for you, find out which vehicles are considered the most desirable, and ask to test drive other people's vehicles
 - C. Make a list of "must-have features" for the vehicle, go over your budget to find a price range that you can afford, check product reports that compare vehicles, consider gas mileage, insurance rates, and monthly loan payments
 - D. Look for the most inexpensive vehicle on the market, go to your favorite dealership to see what they have in stock, consider loan rates, gas mileage, and insurance rates
4. Imagine you and your family are talking about getting a new dog. Your parents have told you that you can pick out what breed to get. The dog must be good with young children and calm enough to stay indoors sometimes. What information must you collect about the dog to make your parents happy?
- A. Price, Food Cost, Vet Cost
 - B. Size, Age, Demeanor, Nature with Children
 - C. Nature with Children, Demeanor
 - D. Muzzle Shape, Tail Style, Biting Habits
5. Your car is now 10 years old, and you are thinking about getting a new one. You think it's possible to make payments on a new or gently-used car. You're also concerned about what make/model. What would be the most appropriate thing to find out first?
- A. What car and features you may want to buy
 - B. What price and monthly payment would be possible
 - C. What features the car or truck would have
 - D. Should you buy a new or used vehicle
6. You are the Safety Officer on a cruise ship. Your responsibilities boil down to two things: 1) Protect the passengers from death and injury, and 2) Protect the property of the cruise line. On the third day at sea you are making your rounds and discover a fire in a storeroom. What is the most appropriate action to take?

- A. Start fighting the fire
 - B. Yell fire! Get into a lifeboat and lower it to the sea and escape.
 - C. Activate the fire alarm and notify the captain.
 - D. Start handing out lifejackets and order everybody to the lifeboat.
7. You went out to find a car and located a really nice one. It's a year old, and the owner wants to sell it now because he needs the money. Looks good, so you take out a loan and buy the car. What would have been the most important action that you overlooked before you handed over the money?
- A. Have the car gone over for problems by a reputable mechanic
 - B. Take it for a drive with your cousin who has experience with cars
 - C. Get the owner to provide information on work that the car needed done
 - D. Forget getting a used car; just buy a new one
8. Problem solving involves multiple "steps" to completion including identifying your problem, collecting and analyzing information/data related to the problem, developing and applying strategies to solve the problem, and evaluating the outcome of the strategies you applied. If your evaluation process demonstrated that you had not corrected the problem, what would be the next step you would take in this problem solving process?
- A. Make sure you have correctly identified your problem
 - B. Reanalyze the data/information you collected
 - C. Develop new problem solving strategies
 - D. Develop new applications of your problem solving strategies
9. It is the fall equinox so the sun's declination is 0 degrees latitude. You are in your tree stand which happens to be in Alpena County astride the 45 parallel. It has been a cold fall and because the sun is shining brightly this day you expect to see deer moving at noon. What will be the noon sun angle on this day?

- A. 45 degrees above the horizon
- B. 60 degrees above the horizon
- C. 45 degrees below the horizon
- D. 90 degrees above the horizon

10. Total revenue for the county's budget last year was \$ 3,713,777.73. The current property tax revenues were \$ 1,362,321.48. What percent of total revenues are the property taxes?

- A. 20%
- B. 36%
- C. 45%
- D. 56%

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