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| 1. For a car traveling at a speed of 50 miles per hour, the relationship between the distance traveled, *d*, and the time traveled, *t*, is described by the function *d* = 50*t*. Which statement is true?   **F** The time traveled depends on the distance traveled.  **G** The distance traveled depends on the time traveled.  **H** The speed of the car depends on the distance traveled.  **J** The speed of the car depends on the time traveled. | 1. A function is described by the equation *f* (*x*) = *x*2 + 5. The replacement set for the independent variable is {1, 5, 7, 12}. Which of the following is contained in the corresponding set for the dependent variable?   **A** 0  **B** 6  **C** 7  **D** 15 | 1. A community-service organization is selling $10 tickets to a fund-raiser for the local children’s hospital. The money raised from ticket sales will be donated to the children’s hospital. Which best describes the dependent quantity in this situation?   **F** The number of tickets sold is dependent on the amount of the donation.  **G** The price of each ticket is dependent on the number of tickets sold.  **H** The amount of the donation is dependent on the number of tickets sold.  **J** The price of each ticket is dependent on the amount of the donation. |

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| 1. Students in a science class recorded lengths of a stretched spring, as shown in the table below.   Which equation best represents the relationship between distance  stretched, *x*, and the weight on the spring, *y*?  **A** *y* = −5*x*  **B** *y* =  **C** *y* = 5*x*2  **D** *y* = 5*x* | 1. Which equation best describes the relationship between x and y in this table?     A y = x + 1  C y = 3x − 1  B y = x − 1  D y = 3x + 1 | 1. An equation can be used to find the total cost of buying square-foot floor tiles to cover an area of floor. Using the table below, find the equation that best represents *y*, the total cost, as a function of *x*, the number of square feet to be covered.     **F** *x* = 0.35*y*  **G** *y* = 0.35*x*  **H** *x* = 2.86*y*  **J** *y* = 2.86*x* |

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| 1. Which is always a correct conclusion about the quantities in the function *y* = *x* + 4?   **A** The variable *x* is always 4 more than *y*.  **B** When the value of *x* is negative, the value of *y* is also negative.  **C** The variable *y* is always greater than *x*.  **D** As the value of *x* increases, the value of *y* decreases. | 1. The graph below best represents which of the following relationships   between temperature and time?  **A** Oven temperature while a cake is baking  **B**Temperature of water that is heated on a stove, removed, and then allowed to cool  **C** Temperature of a container of hot tea after placing several cubes of ice in it  **D** Room temperature of a gym after the air conditioner is turned on |
| 1. The Alejo family budgeted $2000 for their vacation. Their budget consisted of $800 for travel costs and $75 per day for other expenses. Which inequality represents the number of days, *x*, the family could have stayed on vacation?   **A** 800 + 75*x* ≤ 2000  **B** 800*x* + 75 ≥ 2000  **C** 800*x* − 75 ≥ 2000  **D** 800 − 75*x* ≤ 2000 | | 1. Vicki works as a salesclerk in a clothing store. She earns $10 per hour plus a commission of 6% of her total sales. Which equation represents *e*, her total earnings when she works *h* hours and sells a total of *d* dollars in merchandise?   **A** *e* = 10*h* + 0.06*d*  **B** *e* = 10*h* + 0.6*d*  **C** *e* = 6*h* + 10*d*  **D** *e* = 0.06*h* + 10*d* |
| 1. The function *f*(*x*) = {(1, 2), (2, 4), (3, 6), (4, 8)} can be represented in several other ways. Which is NOT a correct representation of the function *f*(*x*)?   **F**  **G** **H** *x* is a natural number less than 5 and *y* is twice *x*  **J** *y* = 2*x* and the domain is {1, 2, 3, 4} | |