مدارس البكالوريا
BACCALAUREATE SCHOOLS

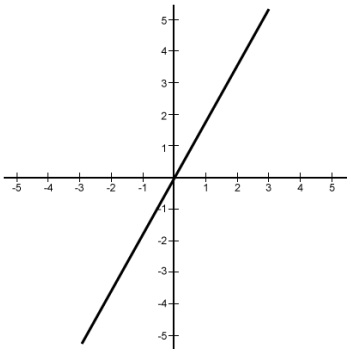
Relations and Functions Worksheet

Name:_____. **Date**:_____. **Grade**: 8th

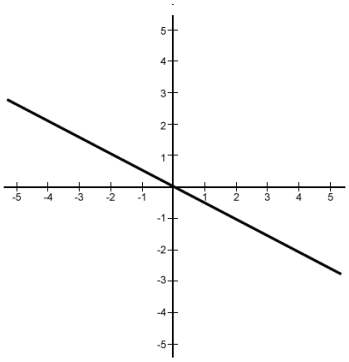
Answer the following questions according to the given instructions:

1. **Jenny saves $2 from every hour she works to put into a savings account. Which graph below represents this situation? Circle the correct option.**

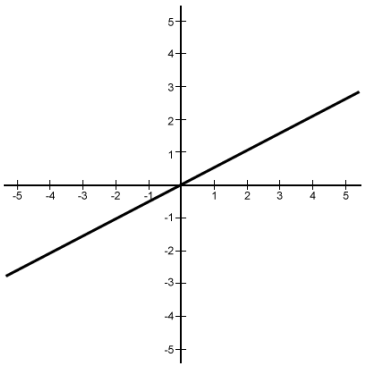
A.



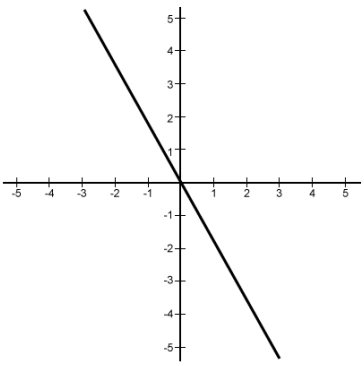
B.



C.



D.



2. **Which of the following relations is also a function?:**
   - **A.** {(2,4), (3,5), (2,7)}
   - **B.** {(3,5), (4,6), (3,7)}
   - **C.** {(-2,1), (-2,3), (6,5)}
   - **D.** {(10,0), (2,4), (-2,6)}

Answer: _____

3. **Which sets of ordered pairs represent functions?**

   - **A.** {(4,6) (5,7) (6,8) (7,9)}
   - **B.** {(1,8) (2,8) (3,8) (4,8) (5,8)}
   - **C.** {(2,4) (2,7) (6,4) (12,10) (15,5)}
   - **D.** {(3,5) (3,9) (3,11) (3,15)}

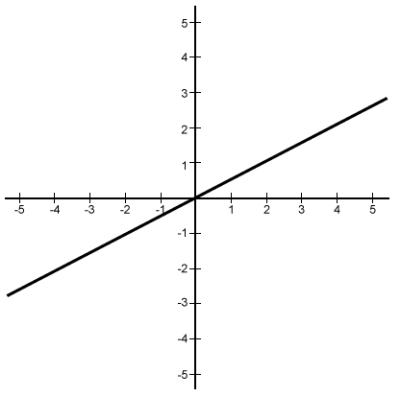
Answer: _____

4. **A domain is**

   - **A.** a mathematical sentence starting that two quantities are equal.
   - **B.** an expression that has a root.
   - **C.** the set of x-coordinates in a relation.
   - **D.** None of the above.

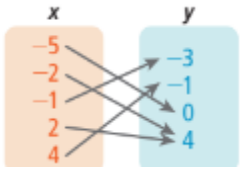
Answer: _____

5. **Is this a function?:**



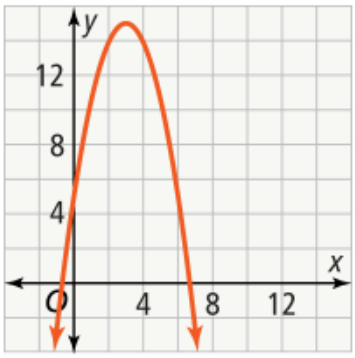
   - **A.** Yes.
   - **B.** No.
   - **C.** Not enough information.
   - **D.** Sometimes.

6. **Is this a function?:**



A. Yes.
B. No.
C. Not enough information.
D. Sometimes.

7. **The graph shows the height of a thrown ball x seconds after it is thrown. Based on the situation, are there any constraints on the domain of the function?:**



A. Yes.
B. No.
C. Not enough information.
D. Sometimes.

8. **What are the domain and the range of the following function?:**

x	1	2	3	4	5
y	11	12	13	13	13

Domain: _____ **Range:** _____

9. **A hose fills a 10,000-gallon swimming pool at a rate of 10 gallons per minute. A function can model this situation. What is a reasonable domain and range of this function?**

Domain: _____ **Range:** _____

10. **A restaurant needs to order chairs for its tables. One table can accommodate four chairs. A function can model this situation. What is a reasonable domain and range of this function?**

Domain: _____ **Range:** _____