MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Decide whether the relation is a function.

1) \{(-5, -2), (-1, 1), (3, -6), (8, 1)\}
   A) Function  B) Not a function

2) \{(2, -9), (2, -2), (6, 8), (8, 1), (11, -7)\}
   A) Not a function  B) Function

3) \{(-8, 2), (-8, 8), (-1, 6), (4, 7), (7, 5)\}
   A) Function  B) Not a function

Determine whether the relation is a function.

4)
   \[a \rightarrow x, b \rightarrow y, c \rightarrow z\]
   A) Function  B) Not a function

5)
   \[\frac{1}{15}, \frac{-6}{15}, \frac{-16}{-7}\]
   A) Function  B) Not a function

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Determine whether the relation is a function. Respond either "function" or "not a function". If it is not a function then state what is wrong in the relation that prevents it from being a function.

6)

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Determine whether the relation is a function.

7) \[9 \rightarrow -17, -10 \rightarrow 13, -15 \rightarrow -10\]
   A) Function  B) Not a function
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Decide whether the relation is a function. If it is a function, respond "yes" and state the domain and range. If the relation is not a function, respond "no" then state the necessary restrictions on the domain and range to produce a function.

8) [Diagram with a parabola]

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Decide whether the relation is a function, and give the domain and range.

9) [Diagram with a circle]

A) Function; domain: [-2, 8]; range: [3, 5]  
B) Not a function; domain: [-2, 8]; range: [3, 5]

10) [Diagram with a line]

A) Not a function; domain: (-\infty, \infty); range: (-\infty, \infty)  
B) Function; domain: (-\infty, \infty); range: (-\infty, \infty)