

17. The properties of two linear functions are being compared. The function $f(x)$ has a slope of 2 and crosses the y -axis at the point $(0, 4)$. The function $g(x)$ is represented in the function table below.

x	$g(x)$
-7	-2
-5	-1
-3	0
-1	1
1	2

Which represents the intervals in which the outputs of the functions are negative?

- A. $f(x)$ is negative when $x < 4$;
 $g(x)$ is negative when $x < 1$.
- B. $f(x)$ is negative when $x < -2$;
 $g(x)$ is negative when $x < -3$.
- C. $f(x)$ is negative when $x < -2$;
 $g(x)$ is negative when $x < 1$.
- D. $f(x)$ is negative when $x < -4$;
 $g(x)$ is negative when $x < -3$.
18. Val is measuring water temperatures in her science class. Water is in liquid form between 32°F and 212°F . After measuring each temperature in degrees Fahrenheit, she subtracts 32 and then multiplies by $\frac{5}{9}$ to find the temperature in degrees Celsius. If all the water she is using is in liquid form, what is the practical domain of the function that she is using to convert from degrees Fahrenheit to degrees Celsius?
- A. $0 < x$
- B. $32 < x$
- C. $0 < x < 100$
- D. $32 < x < 212$

19. The explicit equation of an arithmetic sequence is described below.

$$a_n = 26n - 107$$

Which represents the domain of this arithmetic sequence?

- A. all rational numbers
- B. all integers
- C. all whole numbers
- D. all natural numbers
20. The function $f(t)$ describes the distance of an airplane from its destination, in miles, t minutes after the plane takes off. If $f(93) = 711$ and $f(97) = 663$, which of the following represents the average rate of change of $f(t)$ during the interval $93 \leq t \leq 97$?
- A. $-\frac{1}{12}$ mile per minute
- B. -4 miles per minute
- C. -12 miles per minute
- D. -48 miles per minute