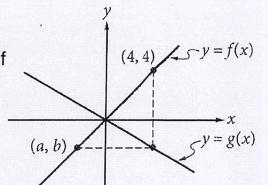
1. The graphs of the functions f and g, defined by f(x)=x and g(x)=-0.5x, are shown in the xy-plane. If the vertical dashed line is parallel to the y-axis and the horizontal dashed line is parallel to the x-axis, what is the value of a+b?



A) -4 B) -2 C) 2 D) 4

2. The table below gives the values of the function f for some values of x. Which of the following equations could define f?

f(x)
5
5/2
5 4
<u>5</u> 8

A.
$$f(x) = 5(2^{x+1})$$

B.
$$f(x) = 5(2^x)$$

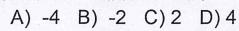
A.
$$f(x) = 5(2^{x+1})$$
 B. $f(x) = 5(2^x)$ C. $f(x) = 5(2^{-(x+1)})$ D. $f(x) = 5(2^{-x})$

D.
$$f(x) = 5(2^{-x})$$

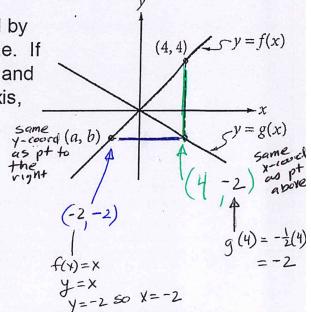
3. The function f is defined by $f(x) = 2b^x$, where b is a constant. The graph of f in the xy -plane passes through the point (1,1). What is the value of f(-1)?



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$$a+b = -2+-2 = -4$$



2. The table below gives the values of the function f for some values of x. Which of the following equations could define f?

L	x	f(x)
	0	5
	1	5/2
	2	<u>5</u> 4
	3	<u>5</u> 8

A.
$$f(x) = 5(2^{x+1})$$
 B. $f(x) = 5(2^x)$ C. $f(x) = 5(2^{-(x+1)})$ D. $f(x) = 5(2^{-x})$

B or D.

B entry
$$(1, \frac{5}{2})$$

B. $f(1) = 5(2^{1}) = 5 \cdot 2 = 10$

D $f(1) = 5(2^{-1}) = 5 \cdot \frac{1}{2} = \frac{5}{2} + \frac{1}{2}$



3. The function f is defined by $f(x) = 2b^x$, where b is a constant. The graph of f in the xy-plane passes through the point (1,1). What is the value of f(-1)?

The point (1,1) cane be substituted into
$$f(x)$$
 to get $1=2b'$ now solve for b . $b=\frac{1}{2}$ Therefore $f(x)=2\left(\frac{1}{2}\right)^{x}$ now find $f(-1)=2\cdot\left(\frac{1}{2}\right)^{-1}=2\cdot\frac{2}{1}=4$