SAT Math Function Examples

1. If $f(x) = 3x - 7$, then:

a) What is $f(2)$?

b) What is $3f(3)$?

c) What is $f(\text{chickpea})$?

d) If $f(a) = 14$, then what is a?

e) If $f(2b) = 23$, then what is b?

f) If $f(c) + f(2c) = 4$, then $c =$?

g) If $f(3d - 7) = 8$, then $d =$? ☹

x	$f(x)$
1	1
2	3
3	5
4	7
5	9
6	11

2. For the function in the table above,

a) What is $f(3)$?

b) If $f(a) = 7$, then what is a?

c) If $f(2) = b$, then what is $f(2b)$? ☹

3. If $g(x) = x^2$, then:

a) What is $g(-2)$?

b) If $g(w) = 25$, then what is w? ☹

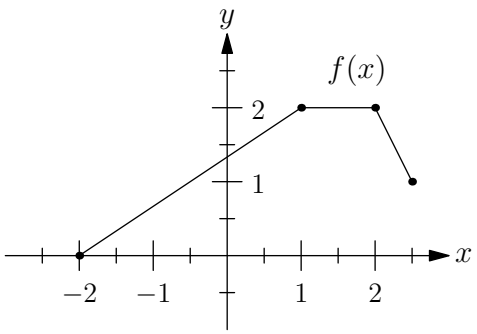
c) If $g(a) = 12$, then what is $g(2a)$? ☹

4. Define $\triangle x = 1 - 3x$. Then:

a) What is $\triangle 2$?

b) If $\triangle a = 4$, then $a =$?

c) What is $\dfrac{\triangle 3}{\triangle 1}$?



5. For the function f graphed above,

a) What is $f(1.5)$?

b) If $c < 0$ and $f(c) = 1$, then $c =$? ☹

c) For how many values of x is $f(x) = \dfrac{3}{2}$?

A "☹" means that this question may be extra tricky!

SAT Math Function Examples Answers

1. If $f(x) = 3x - 7$, then:

a) What is $f(2)$? -1

b) What is $3f(3)$? 6

c) What is $f(\text{chickpea})$? $3 \times \text{chickpea} - 7$

d) If $f(a) = 14$, then what is a? 7

e) If $f(2b) = 23$, then what is b? 5

f) If $f(c) + f(2c) = 4$, then $c =$? 2

g) If $f(3d - 7) = 8$, then $d =$? ☹ 4

x	$f(x)$
1	1
2	3
3	5
4	7
5	9
6	11

2. For the function in the table above,

a) What is $f(3)$? 5

b) If $f(a) = 7$, then what is a? 4

c) If $f(2) = b$, then what is $f(2b)$? ☹ 11

3. If $g(x) = x^2$, then:

a) What is $g(-2)$? 4

b) If $g(w) = 25$, then what is w? ☹ 5, -5

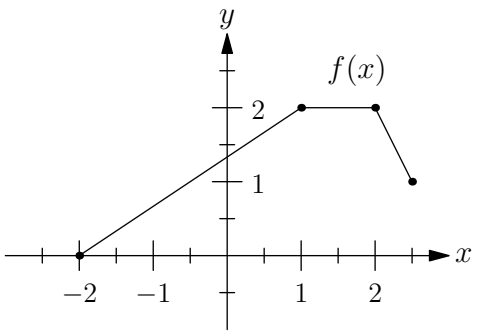
c) If $g(a) = 12$, then what is $g(2a)$? ☹ 48

4. Define $\triangle x = 1 - 3x$. Then:

a) What is $\triangle 2$? -5

b) If $\triangle a = 4$, then $a =$? -1

c) What is $\dfrac{\triangle 3}{\triangle 1}$? 4



5. For the function f graphed above,

a) What is $f(1.5)$? 2

b) If $c < 0$ and $f(c) = 1$, then $c =$? ☹ $-\dfrac{1}{2}$

c) For how many values of x is $f(x) = \dfrac{3}{2}$? Two

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