

Name:

Class/Set:

Functions Basics

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1: Work out the value of each function:

a) If $h(x) = x - 9$, find $h(13)$

b) If $g(x) = \frac{-x}{3}$, find $g(-30)$

2: Work out the value of each function:

a) If $f(x) = \frac{-x^2 + 8}{8}$, find $f(8)$

b) If $h(x) = -7(x - 3)^2$, find $h(10)$

3: Work out the value of each function:

a) If $f(x) = \sqrt{\left(\frac{x+8}{5}\right)}$, find $f(117)$

b) If $g(x) = \frac{x-3}{10}$, find $g(63)$

4: Work out the value of each function:

a) If $f(x) = \frac{x+9}{x+2}$, find $f(3)$

b) If $g(x) = \frac{1}{4-3x}$, find $g(1)$

5: Work out the value of each function:

a) If $h(x) = \frac{1-4x}{2x}$, find $h(-\frac{1}{6})$

b) If $g(x) = \frac{6x-5}{5x-2}$, find $g(\frac{21}{46})$

6: Solve for x :

a) $f(x) = x^2$; $f(x) = 81$

b) $h(x) = \sqrt{x}$; $h(x) = 2$

7: Solve for x :

a) $f(x) = \left(\frac{x+4}{9}\right)^2$; $f(x) = \frac{36}{81}$

b) $g(x) = 7x + 6$; $g(x) = -36$

8: Solve for x :

a) $h(x) = 6\sqrt{x-3}$; $h(x) = 1$

b) $h(x) = \sqrt[3]{-7x+2}$; $h(x) = 10$

9: Solve for x :

a) $g(x) = \frac{5x-3}{6x-4}$; $g(x) = \frac{3}{4}$

b) $f(x) = \frac{4}{x-4}$; $f(x) = -\frac{4}{13}$

10: Solve for x :

a) $g(x) = \frac{4}{x} - 10$; $g(x) = 7$

b) $f(x) = \frac{5x+10}{x-1}$; $f(x) = -3$

Answers: Functions Basics

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1: a) 4

b) 10

2: a) -7

b) -343

3: a) 5

b) 6

4: a) $2\frac{2}{5}$

b) 1

5: a) -5

b) -8

6: a) $x = 9$

b) $x = 4$

7: a) $x = 2$

b) $x = -6$

8: a) $x = \frac{16}{36}$

b) $x = -14$

9: a) $x = 0$

b) $x = -9$

10: a) $x = \frac{4}{17}$

b) $x = -\frac{7}{8}$