AQA, OCR, Edexcel

GCSE

GCSE Maths

Functions Questions

Name:



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Total Marks: /42

Functions

- 1. f is a function such that $f(x) = x^2 + 2x 2$.
 - a. Find f(3)
 - b. Find f(10)
 - c. Find f(1.5)

(3 Marks)

- 2. f is a function such that f(x) = -5(x+5).
 - a. Find f(12)
 - b. Find f(-0.5)
 - c. Find $f(-\pi)$

(3 Marks)

- 3. f is a function such that $f(x) = \frac{10}{3x-5}$.
 - a. Find f(10)
 - b. Find f(-1)
 - c. Find f(0.25)

(3 Marks)

- 4. Let f(x) = 5x 10 and $h(x) = -\frac{5}{x}$.
 - a. Find fh(x)
 - b. Find hf(x)

(4 Marks)

5. Let $g(x) = \frac{-2}{2x+5}$ and h(x) = 2x - 3.

- a. Find gh(x)
- b. Find hg(x)

(4 Marks)

6. Let
$$f(x) = \frac{2+x}{5}$$
.

- a. Find $f^{-1}(x)$
- b. Find $f^{-1}(10)$

(4 marks)

7. Let
$$f(x) = x^2 + 4x - 6$$
.

- a. Find $f^{-1}(x)$
- b. Find $f^{-1}(-10)$

(4 Marks)

8. Let
$$f(x) = x^2 + 3x - 2$$
 and $h(x) = x + 3$.

- a. Find fh(x)
- b. Find hf(x)

(4 marks)

9.
$$f$$
 is a function such that $f(x) = \frac{2}{3x-3}$.

- a. Find $f^{-1}(x)$
- b. Find $ff^{-1}(x)$
- c. Find $ff^{-1}(-2)$

(7 Marks)

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10. *f* is a function such that $f(x) = \frac{4x+1}{3x-5}$.

- a. Find $f^{-1}(x)$
- b. Find $ff^{-1}(x)$

(6 Marks)