Function Notation

SCAN ME

REVISE THIS TOPIC

1 $f(x) = 6x - 1$ $g(x) = 8x^2$

1 (a) Work out the value of f(10) **[1 mark]**

$6(10) - 1$

Answer 59

1 (b) Work out the value of g(5) **[1 mark]**

8×5^2

Answer 200

1 (c) Work out the value of f(-2) + g(2) **[2 marks]**

$6(-2) - 1 = -13$ $-13 + 32$

$8 \times 2^4 = 32$ $= 19$

Answer 19

1 (d) Work out the value of f(0.5) – g(0.5) **[2 marks]**

$6(0.5) - 1 = 2$ $2 - 2 = 0$

$8 \times 0.5^2 = 2$

Answer 0

6

2 $f(x) = 9 - x^2$ $g(x) = \frac{3}{x}$ $h(x) = 2^x$

2 (a) Work out the value of f(-2) **[1 mark]**

$9 - (-2)^2$

Answer 5

2 (b) Work out the value of g(0.5) **[1 mark]**

$3 \div 0.5$

Answer 6

2 (c) Work out the value of h(4) **[1 mark]**

2^4

Answer 16

2 (d) Work out the value of $f(\sqrt{3})$ **[2 marks]**

$9 - (\sqrt{3})^2$

$= 9 - 3$

Answer 6

2 (e) Work out the value of g(4) + h(-2) **[2 marks]**

$\frac{3}{4} + 2^{-2} = \frac{3}{4} + \frac{1}{4}$

Answer 1

3 $f(x) = x^2 + 6x - 40$ $g(x) = \frac{1}{x-4}$ $h(x) = \sqrt{2x-3}$

3 (a) Work out the value of f(2) **[1 mark]**

$2^2 + 6(2) - 40$

Answer -24

3 (b) Work out the value of g(7) **[1 mark]**

$\frac{1}{7-4}$ $\frac{1}{3}$

Answer

3 (c) Work out the value of h(26) **[1 mark]**

$\sqrt{2(26)-3} = \sqrt{49}$

Answer 7

3 (d) Work out the value of $g\left(\frac{23}{5}\right)$ **[2 marks]**

Give your answer as a mixed number.

$\frac{1}{\frac{23}{5}-4} = \frac{1}{\frac{23}{5}-\frac{20}{5}} = \frac{1}{\frac{3}{5}} = \frac{5}{3}$

Answer $1\frac{2}{3}$

3 (e) Work out the value of f(10) × g(10) **[2 marks]**

$10^2 + 6(10) - 40 = 120$

$\frac{1}{10-4} = \frac{1}{6}$ $120 \times \frac{1}{6} = 20$

Answer 20