

EduSahara™ Learning Center Assignment**Grade : Class VIII, ICSE****Chapter : Relations and Mapping****Name : Real Valued Functions****Licensed To : Teachers and Students for non-commercial use**

1. If $f(x) = (3x + 9)$, then find $f(8)$

- (i) 34 (ii) 32 (iii) 30 (iv) 36 (v) 33
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2. If $f(x) = (8x + 3)$ and $g(y) = (7y + 3)$, then find $f(2)$, $g(5)$

- (i) 20,39 (ii) 18,37 (iii) 19,38 (iv) 22,40 (v) 16,35
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3. If $f: A \rightarrow B$ is defined by $f(x) = (4x + 9)$ and $A = \{5, 9, 2, 4\}$,
find the range

- (i) $\{29, 45, 17, 25\}$
(ii) $\{25, 17, 45\}$
(iii) $\{11, 17, 25, 2, 45, 29\}$
(iv) $\{29, 12, 53, 25\}$
(v) $\{25, 29, 0, 45\}$
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4. If $f(t) = (t^2 + 3t + 9)$ then find $f(3x - 2)$

- (i) $(9x^2 - 3x + 7)$
(ii) $(6x^2 - 3x + 7)$
(iii) $(12x^2 - 3x + 7)$
(iv) $(10x^2 - 3x + 7)$
(v) $(8x^2 - 3x + 7)$
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5. If $f(x) = (3x - 3)$ and $g(x) = (7x^2 + 8x - 3)$,

find the value of $\frac{f(3) + f(-6) + f(-3)}{g(-6) + g(-3) + g(4)}$

- (i) $(\frac{-3}{14})$ (ii) $(\frac{-1}{14})$ (iii) $(\frac{-1}{12})$ (iv) $\frac{1}{14}$ (v) $(\frac{-1}{16})$
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Find the range of $f: \mathbb{Z} \rightarrow \mathbb{Z}$ where $f(x) = (6x - 5)$

6.

and domain of f is $\{x : 5 \leq x \leq 9\}$

- (i) $\{25, 37, 43, 49, 29\}$
 (ii) $\{25, 31, 43, 49, 39\}$
 (iii) $\{25, 31, 37, 49, 44\}$
 (iv) $\{31, 37, 43, 49, 24\}$
 (v) $\{25, 31, 37, 43, 49\}$
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Let $f: \mathbb{R} \rightarrow \mathbb{R}$ be a function defined by given conditions

$$f(x) = (7x + 1) \text{ if } x < -4$$

7. $f(x) = (3x + 4) \text{ if } -4 \leq x \leq 4$

$$f(x) = (4x + 6) \text{ if } x > 4$$

find $f(x)$ where $x = -4$

- (i) -9 (ii) -7 (iii) -8 (iv) -27 (v) -10
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8. Find the range of $f: \mathbb{Z} \rightarrow \mathbb{Z}$ where $f(x) = (2x^2 + 2x - 1)$

and domain of f is $\{x : -5 \leq x \leq -1\}$

- (i) $\{23, 11, 3, -1, 40\}$
 (ii) $\{39, 23, 11, 3, -3\}$
 (iii) $\{39, 11, 3, -1, 22\}$
 (iv) $\{39, 23, 11, 3, -1\}$
 (v) $\{39, 23, 11, -1, 5\}$
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Assignment Key

- 1) (v)
- 2) (iii)
- 3) (i)
- 4) (i)
- 5) (ii)
- 6) (v)
- 7) (iii)
- 8) (iv)