

**Grade VII – Mathematics**  
**Homework Worksheet**

Name: \_\_\_\_\_

Grade: \_\_\_\_\_

Section: \_\_\_\_\_

Date: \_\_\_\_\_

**Q1)**

Given that  $a = -2$  and  $b = 7$ , evaluate the following expressions:

- |               |                 |
|---------------|-----------------|
| (a) $4a + 5b$ | (b) $2a^2$      |
| (c) $3a - 4b$ | (d) $a(b - a)$  |
| (e) $b - a^2$ | (f) $(b - a)^2$ |

**Q2) Simplify each of the following expressions.**

a)	$10 + \frac{1}{3}[4k - (18 + 7k)]$
b)	$1 - 3(1 + x) + \{2 - (4x - 7)\}$
c)	$18 - [10 - x - (9 - x)]$
d)	$-2[3x - (4 - 5) - (6 - 8)x]$
e)	$9[5a - 2\{3a - (7 - 2a)\}]$

**Q3) Simplify the following algebraic fractions.**

$$3a - \frac{4 - 3a}{5} - \frac{a - 4}{6}$$

$$\frac{a + b}{3} - \frac{b + c}{2} + \frac{4a - c}{5}$$

$$\frac{2(3a + b)}{5} + \frac{4(2a - b)}{3}$$

$$\frac{6x - y}{5} + \frac{3x - 4y}{10} - \frac{5(x - 2)}{6}$$

$$\frac{4(x - 5)}{7} - \frac{5(x - y)}{6} + \frac{7x - y}{21}$$

## Answer Key

Q1)

a)	27
b)	8
c)	-34
d)	-18
e)	3
f)	81

Q2)

a)	$4 - k$
b)	$7 - 7x$
c)	17
d)	$-10x - 2$
e)	$126 - 45a$

Q3)

a)	$\frac{113a - 4}{12}$
b)	$\frac{34a - 5b - 21c}{30}$
c)	$\frac{58a - 14b}{15}$
d)	$\frac{10x - 9y + 25}{15}$
e)	$\frac{x + 11y - 40}{14}$