



## Rosary School \ Marj Elhamam

Name : .....

Date : / / 2025

Subject: practise worksheet 3

Unit 3

Grade : 6 ( )

**Q1)** Simplify each expression by combining like terms.

a)  $3x + 8x = \underline{\hspace{2cm}}$

b)  $7a - 2a + 5 = \underline{\hspace{2cm}}$

c)  $10y + 4 - 6y = \underline{\hspace{2cm}}$

d)  $5m + 2n + 3m - n = \underline{\hspace{2cm}}$

e)  $5x \times 3x = \underline{\hspace{2cm}}$

f)  $8a \times 2b = \underline{\hspace{2cm}}$

g)  $12y \div 4 = \underline{\hspace{2cm}}$

h)  $9m \times 6m = \underline{\hspace{2cm}}$

i)  $8a + 5b + 2a - 3b = \underline{\hspace{2cm}}$

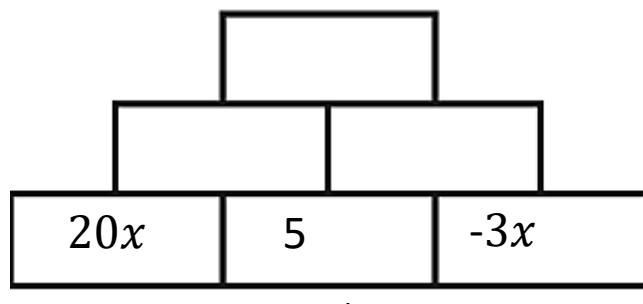
j)  $6a + 15 - 4a + 5 = \underline{\hspace{2cm}}$

k)  $9y - 2 + 4y + 8 = \underline{\hspace{2cm}}$

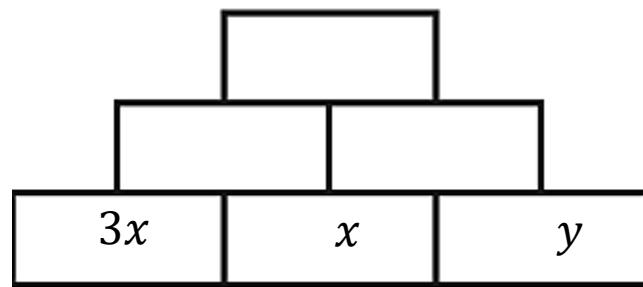
l)  $3x \times 7x = \underline{\hspace{2cm}}$



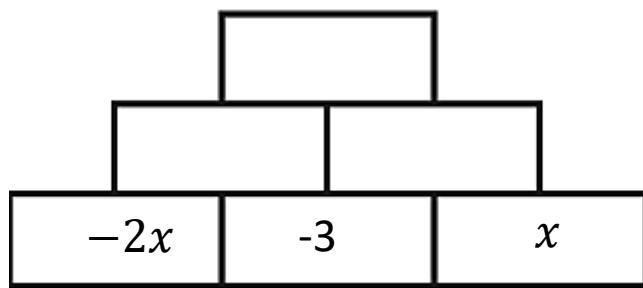
**Q2)** Complete this addition pyramid.



**Q3) a)** Complete this multiplication pyramid.

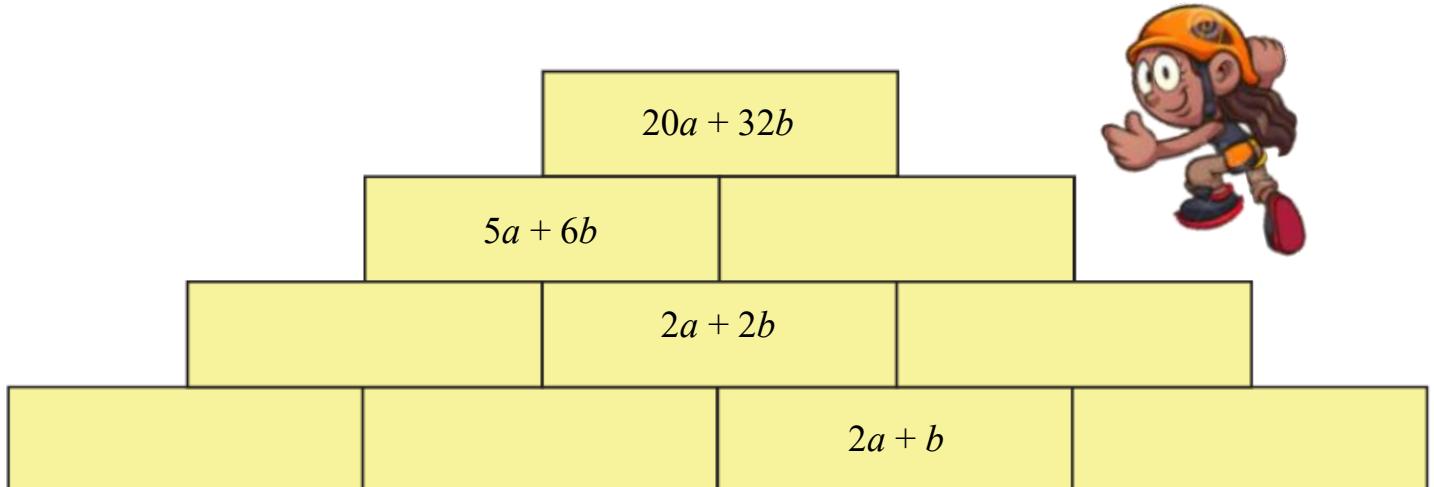


**b)** Complete this multiplication pyramid.



**Q4)** Complete this algebraic pyramid.

Remember, you find the expression in each block by adding the expressions in the two blocks below it.



**Q5)** Write each as an expression.

- a) Seven more than four times  $M \rightarrow$  \_\_\_\_\_
- b) Twelve less than  $N \rightarrow$  \_\_\_\_\_
- c) Half of  $P$  plus 8  $\rightarrow$  \_\_\_\_\_
- d)  $Q$  divided by 5, then increased by 2  $\rightarrow$  \_\_\_\_\_
- e) Triple  $R$ , then subtract 6  $\rightarrow$  \_\_\_\_\_
- f) The sum of two times  $S$  and 7  $\rightarrow$  \_\_\_\_\_
- g) Five more than the product of 3 and  $X \rightarrow$  \_\_\_\_\_
- h)  $Y$  minus 4  $\rightarrow$  \_\_\_\_\_
- i) Twice  $A$  plus 10  $\rightarrow$  \_\_\_\_\_
- j)  $Z$  divided by 2, then subtract 3  $\rightarrow$  \_\_\_\_\_
- k) Four times  $B$  increased by 9  $\rightarrow$  \_\_\_\_\_
- l) Triple  $D$  plus 5  $\rightarrow$  \_\_\_\_\_
- m)  $E$  divided by 3, then increased by 4  $\rightarrow$  \_\_\_\_\_
- n) Twice  $F$  minus 7  $\rightarrow$  \_\_\_\_\_

**Q6)** A woman is  $m$  years old.

- a) How old was she 8 years ago? \_\_\_\_\_
- b) Her brother is 5 years older than she is. How old is he? \_\_\_\_\_
- c) Her father is three times her age. How old is he? \_\_\_\_\_

**Q7)** A baker bakes  $c$  cakes.

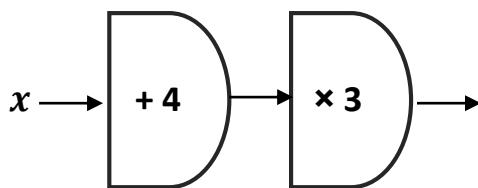
a) He sells 7 cakes. How many are left? \_\_\_\_\_

b) He bakes double the remaining cakes. How many does he have now?  
\_\_\_\_\_

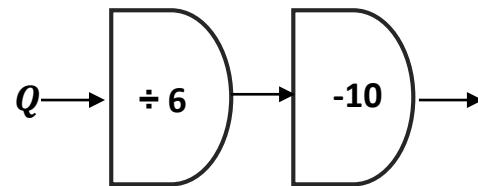
c) He gives away 5 cakes to charity. How many does he have left?  
\_\_\_\_\_

**Q7)** Write an expression for the output of the function machine.

a)



b)



**Q8)** The formula for converting a temperature from Fahrenheit ( $F$ ) to Celsius ( $C$ ) is:

$$C = \frac{5(F - 32)}{9}$$

Convert these temperatures into  $^{\circ}\text{C}$ :

a)  $50^{\circ}\text{F}$

b)  $68^{\circ}\text{F}$

**Q9)** Work out the **value** of each expression.

a)  $5x + 3y$  when  $x = 6$  and  $y = 4$

b)  $7a - 2b$  when  $a = 10$  and  $b = 3$

c)  $m \div 4$  when  $m = 36$

d)  $18 \div p - 5q$  when  $p = 6$  and  $q = 2$

e)  $9t - 4u + 6$  when  $t = 7$  and  $u = 3$

f)  $v \div 2 + 5w$  when  $v = 20$  and  $w = 4$

**Q10)** a) A taxi charges \$5 per kilometer. Write a formula connecting the total fare,  $F$ , in dollars, with the number of kilometers driven,  $k$ .

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b) A loaf of bread costs \$2.50. Write a formula connecting the total cost,  $C$ , in dollars, with the number of loaves bought,  $n$ .

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c) Lina has \$20. Write a formula to calculate the amount of money Lina has left,  $L$ , in \$, after spending  $x$ .

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**Q11)** Expand the brackets.

a)  $5(x + 8)$

b)  $9(2y - 3)$

c)  $8(2m + 9)$

d)  $7(5p - 2x)$

e)  $3x(x + 6b)$

f)  $5y(2y - 4)$

c)  $-7(2p + 9)$

d)  $-6(5y - 4)$

e)  $x(x + b)$

f)  $-8y(2y - 4)$



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