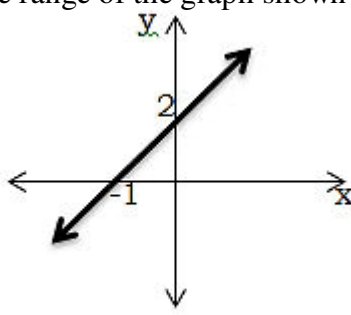


LABASA SANGAM (SKM) COLLEGE

YEAR 10 Mathematics WORKSHEET

STRAND 1 FUNCTION

- This strand has **6 Questions**.
- **Circle the letter** which represents the best answer for **Questions 1 – 3**.
- Show all working for **Questions 4 – 6**

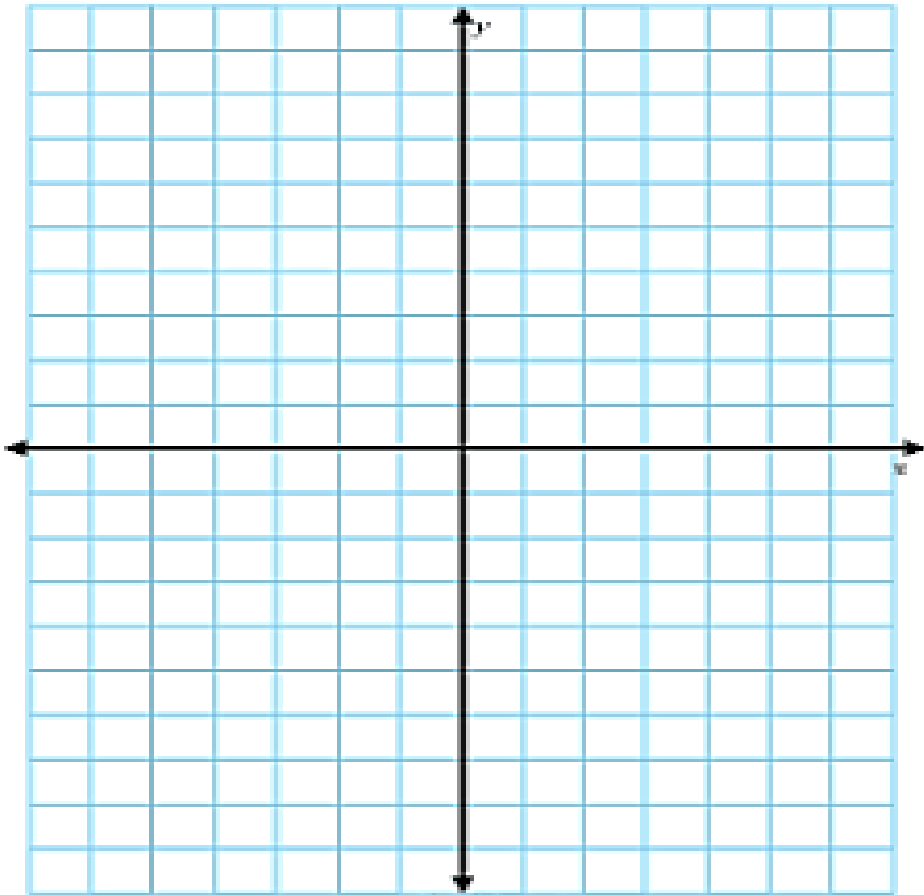
1.	If $a = 3$, the value of $-2a + 1$ is A. -6 B. -5 C. 7 D. 5
2.	If $f(x) = x^2 - 7$, what is $f(-2)$? A. -9 B. -11 C. 3 D. -3
3.	The range of the graph shown below is  A. $\{x \in R\}$ B. $\{y \in R\}$ C. $\{y \geq -1, y \in R\}$ D. $\{y \leq 2, y \in R\}$

4. A quadratic function is given as $y = -2x + 1$ where $x \in \{-2, -1, 0, 1, 2\}$.

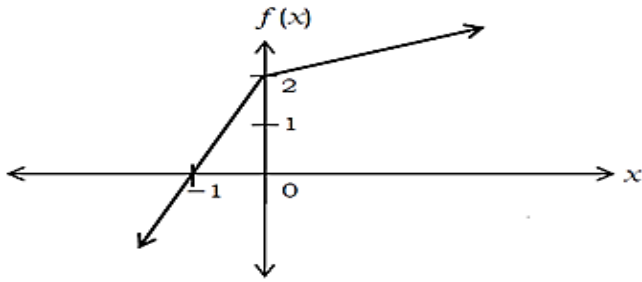
(i) Complete the table given below:

x	y
-2	5
-1	3
0	1
1	<input type="text"/>
2	<input type="text"/>

(ii) Use the table above to sketch the graph of $y = -2x + 1$



5. The graph of a function, $f(x)$ is given below:



(i) What is the value of $f(-1)$?

(ii) Solve for x if $f(x) = 2$.

6. Use the linear function $y = 2x - 1$ to answer the questions below.

(i) Write the coordinates of x intercept.

(ii) Write the coordinates of y intercept.

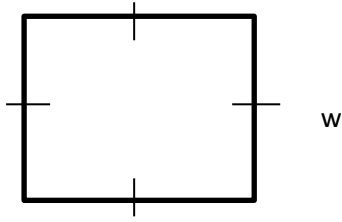
(iii) Identify the gradient from the linear function $y = 2x - 1$.

STRAND 2 ALGEBRA

- This strand has **10 Questions**.
- **Circle** the **letter** which represents the best answer for **Questions 1 – 3**.
- Show all working for **Questions 4 – 10**

1.	<p>What are the values of x in the equation $x(x - 2) = 0$</p> <p>A. $x \in \{-4, 0\}$</p> <p>B. $x \in \{-2, 0\}$</p> <p>C. $x \in \{0, 2\}$</p> <p>D. $x \in \{0, 4\}$</p>
2.	<p>The expression $3 - 6x$ when factorised is equal to</p> <p>A. $3(1 - 2x)$</p> <p>B. $-3x$</p> <p>C. $9x$</p> <p>D. $3(1 + 2x)$</p>
3.	<p>When factorized $a^2 - b^2$ is equal to</p> <p>A. $(a + b)(a + b)$</p> <p>B. $(a - b)(a - b)$</p> <p>C. $(a - b)^2$</p> <p>D. $(a + b)(a - b)$</p>

9. The square shown below has side length w cm and its area is 64 cm^2 .



- (i) Write an equation linking its area and w
- (ii) Find the value of w

10. Make C , the subject of the formula, $E = MC^2$.

STRAND 3 NUMBERS

- This strand has **5 Questions**.
- **Circle** the **letter** which represents the best answer for **Questions 1 – 4**.
- Show all working for **Question 5**

1.	$7x^0 - 1$ can be simplified to A. 0 B. 6 C. $6x$ D. $7x - 1$
2.	2^{-3} is equivalent to A. -6 B. -1 C. $\frac{1}{8}$ D. $\frac{1}{2}$
3.	The value of $(4^2)^2$ in base index form is A. 4^4 B. 4^2 C. 4^{-2} D. 4^{-4}
4.	$a \times a \times a \times b \times b$ in base index form is A. a^2b^3 B. a^3b^2 C. ab^3 D. b^3

5.	<p>Simplify</p> <p>a. $8p^2 \div p^3$</p> <p>b. $-2p \times p^{-2}$</p>
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THE END