Class Name : 8B-B
Student Name: $\qquad$

Instructor Name: Ms. Ryan
Instructor Note :

1. For each equation, determine whether it is linear.

| Equation | Is the equation linear? |  |
| :---: | :---: | :---: |
|  | Yes | No |
| $y=x+8$ | 0 | 0 |
| $y=5^{x}$ | 0 | 0 |
| $y=x^{2}+2$ | 0 | 0 |
| $y=-3 x^{3}$ | 0 | 0 |

2. For each equation, determine whether it is linear.

| Equation | Is the equation linear? |  |
| :---: | :---: | :---: |
|  | Yes | No |
| $y=x^{2}-5$ | 0 | 0 |
| $y=x^{3}$ | 0 | 0 |
| $y=-x+3$ | 0 | 0 |
| $y=-2 x$ | 0 | 0 |

3. For each equation, determine whether it is linear.

| Equation | Is the equation linear? |  |
| :---: | :---: | :---: |
|  | Yes | No |
| $y=-5 x+7$ | 0 | 0 |
| $y=x$ | 0 | 0 |
| $y=-9$ | 0 | 0 |
| $y=2 x^{2}+5$ | 0 | 0 |

4. For each equation, determine whether it is linear.

| Equation | Is the equation linear? |  |
| :---: | :---: | :---: |
|  | Yes | No |
| $5 x y-2 y=7$ | 0 | 0 |
| $x^{5}+5 y=3$ | 0 | 0 |
| $\frac{2 x}{3}+\frac{y}{4}=10$ | 0 | 0 |
| $4 x-9+8 y=y-3$ | 0 | 0 |

5. For each equation, determine whether it is linear.

| Equation | Is the equation linear? |  |
| :---: | :---: | :---: |
|  | Yes | No |
| $\frac{6}{x}+4 y=2$ | 0 | 0 |
| $3 x+8 x y=7$ | 0 | 0 |
| $8 y^{3}+y=x$ | 0 | 0 |
| $7 x=y-6$ | 0 | 0 |

6. Find the $y$-intercept and the $x$-intercept of the line below.

7. Find the $x$-intercept and $y$-intercept of the line.

$$
x+2 y=8
$$

$x$-intercept: $\qquad$
$y$-intercept: $\qquad$
8. Find the $y$-intercept and $x$-intercept of the line.

$$
9 x+3 y=-10
$$

$y$-intercept: $\qquad$
$x$-intercept: $\qquad$
9. For each ordered pair, determine whether it is a solution to $6 x+7 y=19$.

| $(x, y)$ | Is it a solution? |  |
| :---: | :---: | :---: |
|  | Yes | No |
| $(0,-3)$ | 0 | 0 |
| $(-5,7)$ | 0 | 0 |
| $(3,-4)$ | 0 | 0 |
| $(1,2)$ | 0 | 0 |

10. For each equation, determine whether it is linear.

| Equation | Is the equation linear? |  |
| :---: | :---: | :---: |
|  | Yes | No |
| $6 x^{4}+x=y$ | 0 | 0 |
| $5 y=x-9$ | 0 | 0 |
| $2.2=0.05 x-0.7 y$ | 0 | 0 |
| $3 x-\frac{2}{y}=6$ | 0 | 0 |

