## Algebra Review \#25 SHOW HOW YOU SOLVED EACH PROBLEM

1. Solve the following equation:

$$
-16+5 n=-7(-6+8 n)+3
$$

2. What is the range of the following data?

3. Which is the equation for the line that has a slope of 2 and a $y$-intercept of 6 ?

$$
y=6 x+2
$$

A

B $\quad y=6 x+6$
c $5 y=10 x+29$
$4 y=8 x+24$

NAME $\qquad$
4. What is the slope of a line which passes through $(6,7)$ and $(-4,-3)$ ?
5. Find the slope and the $y$-intercept from the following equation (remember, the equation must be in $\mathrm{y}=\mathrm{mx}+\mathrm{b}$ form).

$$
x-5 y=10
$$

Slope: $\qquad$ Y-intercept: $\qquad$
6. Draw a graph of the equation

$$
y=\frac{1}{3} x+4
$$


7. What is the value of the following:

$$
2 \sqrt{40}-10 \sqrt{90}
$$

8. The information below tells the number of students in a class compared to the number of students who passed a test in that class. What would be the line of best fit equation for this data? (Use Desmos)

| Number of <br> students, $\boldsymbol{m}$ | Number of students <br> passing a test, $\boldsymbol{p}$ |
| :---: | :---: |
| 18 | 15 |
| 24 | 18 |
| 26 | 19 |
| 30 | 21 |

A

| $x$ | $y$ |
| ---: | ---: |
| 10 | 20 |
| 1 | 2 |
| 12 | 6 |
| 20 | 10 |

C

| $\boldsymbol{x}$ | $\boldsymbol{y}$ |
| ---: | ---: |
| 7 | 35 |
| 3 | 9 |
| -3 | -30 |
| -7 | -56 |

D

| $x$ | $y$ |
| ---: | ---: |
| 3 | 6 |
| 9 | 2 |
| 18 | 1 |
| 6 | 3 |

10. Solve the system of equations using substitution or elimination.

$$
\left\{\begin{array}{l}
x-5 y=20 \\
x+3 y=-4
\end{array}\right.
$$

