Warm-Up

Solve.

1) $\sqrt{2x - 9} = 3$

2) $3x - 7 \leq 4(x - 8)$

3) $3 \geq \frac{x+3}{-7} > 2$

Answers: 1) $x = 9$

2) $x \geq 25$ or $25 \leq x$

3) $-24 \leq x < -17$

Agenda:

- ➔ Warm-Up
- ➔ Learning Targets

- ➔ Notes on useful formulas.
- ➔ Practice

Learning Targets:

➔ Solve multi-step equations.

➔ Solve simple and compound inequalities.

➔ Find slope given two points.

➔ Write equation of a line in slope-intercept form, point-slope form, and general form.

➔ Find a line parallel or perpendicular to a given line through a given point.

Useful formulas:

$slope = \frac{y_2 - y_1}{x_2 - x1}$

Slope-Intercept form of a line

$y = mx + b$, where m is slope and b is y-int

Point-Slope form of a line

$y = m(x - x_1) + y_1$, where m is slope and (x_1, y_1) is a point on the line.

General form of a line

$Ax + By = C$, where A, B, and C are integers.

Parallel lines have *same* slope.

Perpendicular lines have *opposite reciprocal* slopes.