

# All 12 Prerequisites Are Taught in Prior Courses

## For Success in AP Precalculus

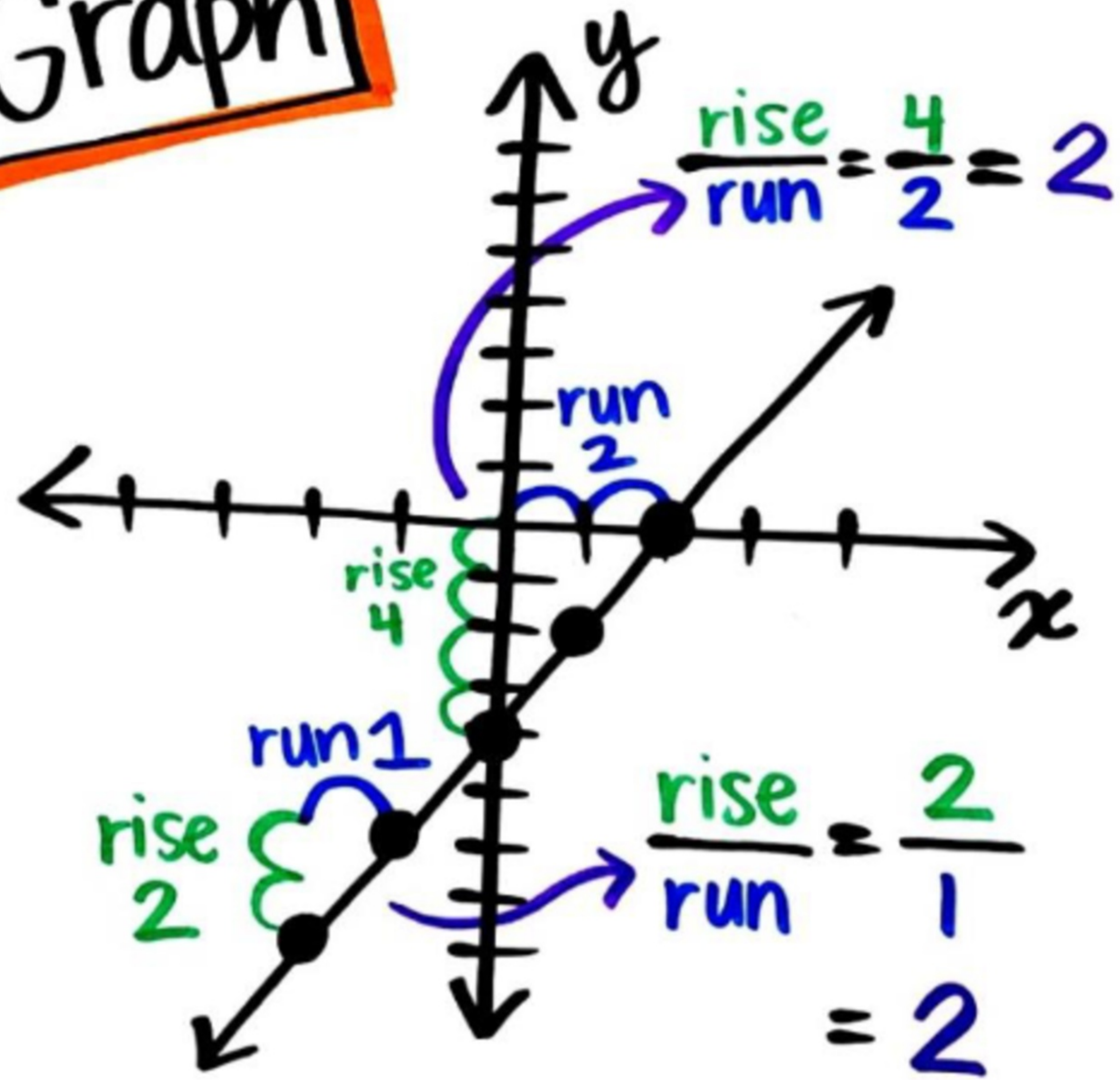
Expected Prior Knowledge and Skills	Algebra 1	Geometry	Algebra 2
Proficiency with linear functions	✓	✓	✓
Proficiency in polynomial addition and multiplication	✓		✓
Proficiency in factoring quadratic trinomials	✓		✓
Proficiency in using the quadratic formula	✓		✓
Proficiency in solving right triangle problems involving trigonometry		✓	✓
Proficiency in solving linear and quadratic equations and inequalities	✓		✓
Proficiency in algebraic manipulation of linear equations and expressions	✓	✓	
Proficiency in solving systems of equations in two and three variables	✓		✓
Familiarity with piecewise-defined functions	✓		✓
Familiarity with exponential functions and rules for exponents	✓		✓
Familiarity with radicals (e.g., square roots, cube roots)	✓	✓	
Familiarity with complex numbers			✓



# Calculating SLOPE

Graph

$$y = 2x - 4$$



Two Points

$(0, -4)$  and  $(1, -2)$   
 $x_1, y_1$  and  $x_2, y_2$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - (-4)}{1 - 0} = \frac{-2 + 4}{1} = \frac{2}{1} = 2$$

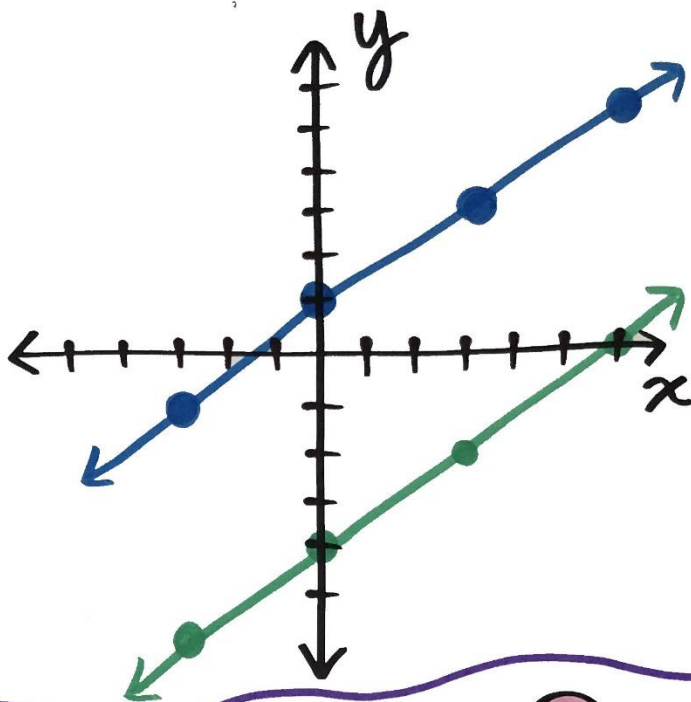


# parallel Lines

**SAME** slope

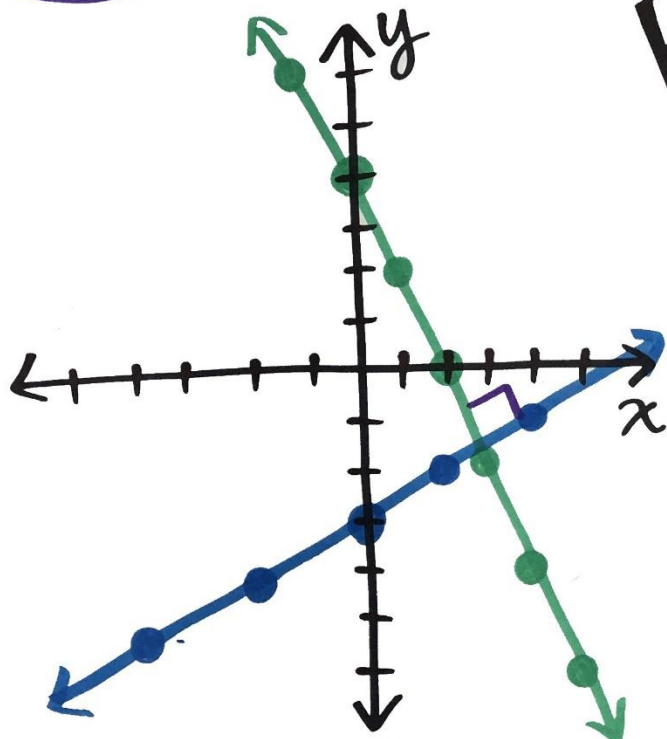
•  $y = \frac{2}{3}x - 4$

•  $y = \frac{2}{3}x + 1$



## TYPES of LINES

### perpendicular Lines



NEGATIVE  
RECIPROCAL slopes

•  $y = -2x + 4$

•  $y = \frac{1}{2}x - 3$