

Graph Chart

GRAPH NUMBER	INDEPENDENT VARIABLE	DEPENDENT VARIABLE	FUNCTION FAMILY	SYMBOLIC RULE	RATIONALE
1	Side length	Perimeter	Linear	$P(s) = 4s$	The graph is a straight line that passes through the origin, (2, 8), and (4, 16). This line has a slope of 4.
2	Perimeter	Side length	Linear	$s(P) = \frac{P}{4}$	The graph is a straight line that passes through the origin, (8, 2), and (16, 4). This line has a slope of $\frac{1}{4}$.
3	Side length	Area	Quadratic	$A(s) = s^2$	The graph passes through the origin, (2, 4), and (4, 16). For each ordered pair, the y-coordinate is the square of the x-coordinate.
4	Diagonal length	Area	Quadratic	$A(d) = \frac{1}{2}d^2$	The graph passes through the origin, (2, 2), and (4, 8). For each ordered pair, the y-coordinate is one-half the square of the x-coordinate.
5	Side length	Side length	Linear	$f(s) = s$	The graph is a straight line that passes through the origin, (1, 1), and (2, 2). This line has a slope of 1.
6	Area	Side length	Square root	$s(A) = \sqrt{A}$	The graph passes through the origin, (4, 2), and (16, 4). For each ordered pair, the y-coordinate is the square root of the x-coordinate.