

Transformations – Coordinate Rules			
Coordinate on $y = f(x)$	Transformation	Coordinate rule	New Coordinate
A (-6, 3)	$2f(x - 4) + 2$	$(x, y) \rightarrow (x + 4, 2y + 2)$	(-2, 8)
B (-2, -3)	$-2f(x - 3) + 7$	$(x, y) \rightarrow (x + 3, -2y + 7)$	(1, 13)
C (-8, 3)	$f(2(x - 4)) - 5$	$(x, y) \rightarrow (\frac{1}{2}x + 4, y - 5)$	(0, -2)
D (6, -2)	$-3f\left(\frac{1}{2}(x + 4)\right) - 8$	$(x, y) \rightarrow (2x - 4, -3y - 8)$	(8, -2)
E (12, -4)	$2f(-4(x - 1)) + 3$	$(x, y) \rightarrow (-\frac{1}{4}x + 1, 2y + 3)$	(-2, -5)
F (15, 9)	$\frac{1}{3}f\left(\frac{1}{3}(x + 3)\right) - 3$	$(x, y) \rightarrow (3x - 3, \frac{1}{3}y - 3)$	(42, 0)
G (12, 16)	$-25\left(\frac{1}{3}(x + 4)\right) + 7$	$(x, y) \rightarrow (3x - 4, -2y + 7)$	(32, -25)
H (-20, 8)	$\frac{1}{4}f(-2(x + 4)) + 10$	$(x, y) \rightarrow \left(-\frac{1}{2}x - 4, \frac{1}{4}y + 10\right)$	(6, 12)