

### Example 3: Analyzing Linear Functions

Use the graphing calculator to help you analyze each linear function and complete the table.

Function	Sketch	Sign of Leading Co-efficient	Slope Direction	End Behaviour
$y = 0.5x + 4$		positive	Rises to the right	Q. III to Q. I
$y = -2.2x + 12$		negative	Decreases on the right	Q. II to Q. IV
$y = -5$		no leading coefficient	horizontal	Q. III to Q. IV
$y = -\frac{1}{3}(x - 1)$ $y = -\frac{1}{3}x + \frac{1}{3}$		negative	Decreases to the right	Q. II to Q. IV
$y = 3(x - 8)$ $y = 3x - 24$		positive	Rises to the right	Q. III to Q. I
$y = -4x + 3$ $y = 3 - 4x$ ↑ leading coefficient		negative	Decreases to the right	Q. II to Q. IV