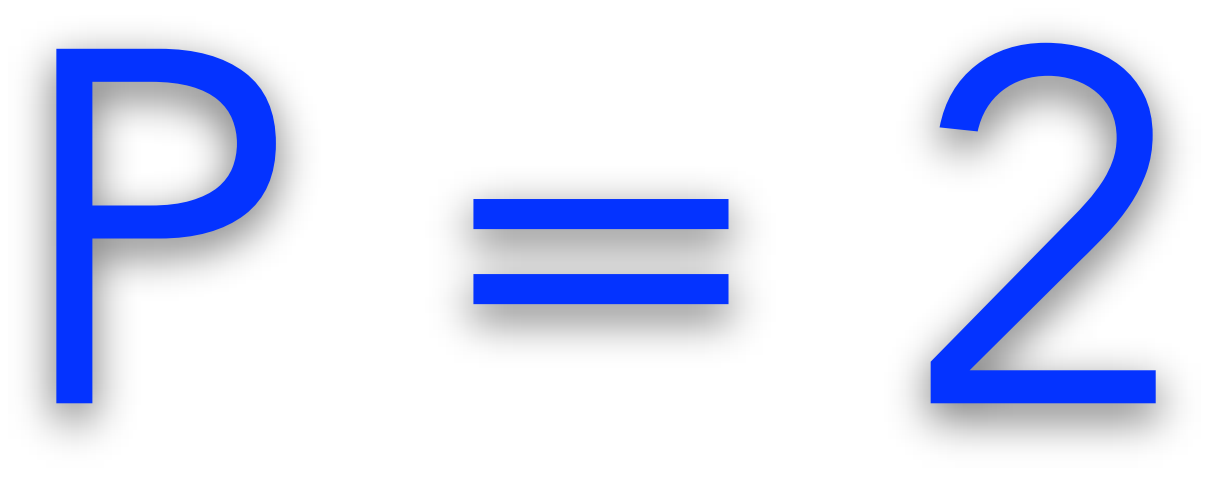
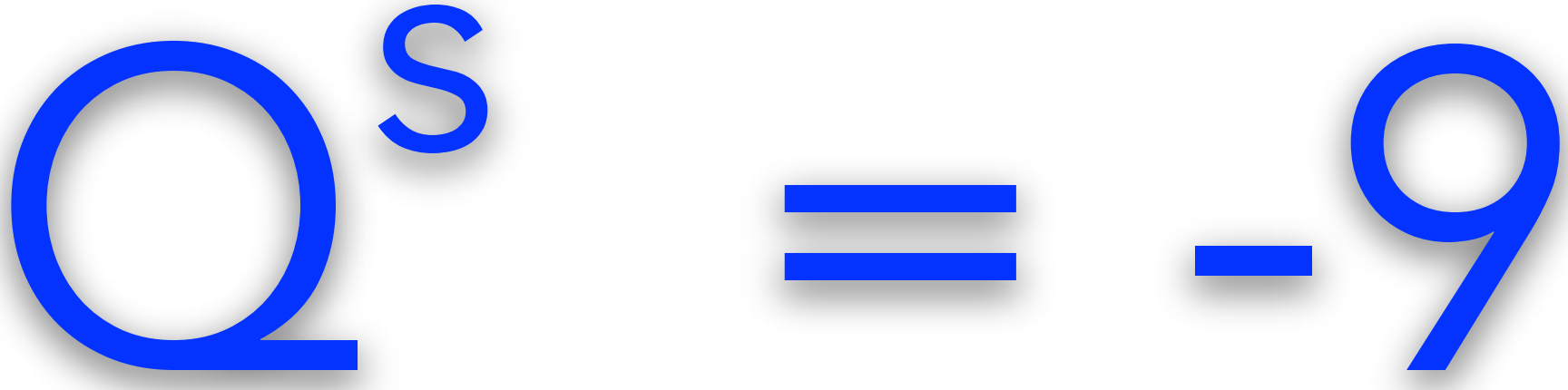
$$Q^S = -9 + 4.5P$$

If $Q^s = 0$


P = 2

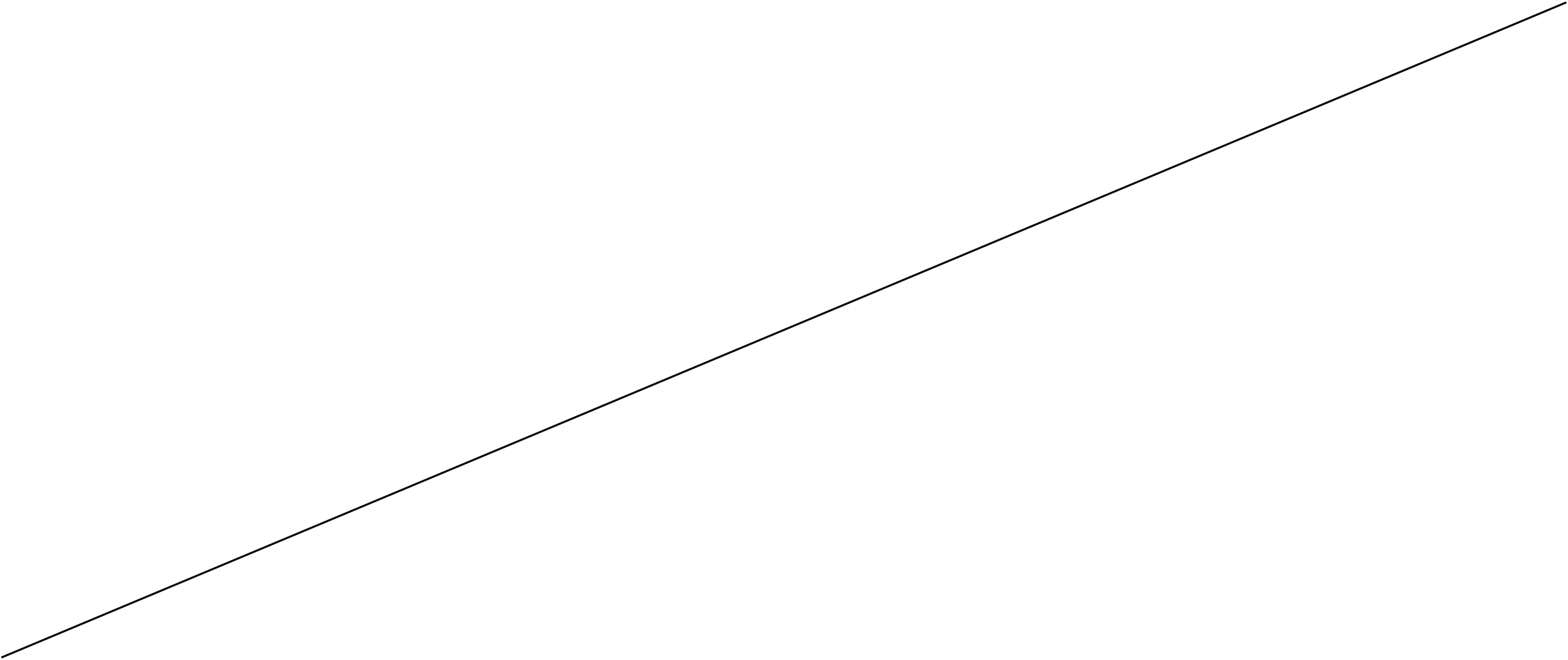
Price

Quantity


Q^S = -9

If P == 0


$Q^S = -9$

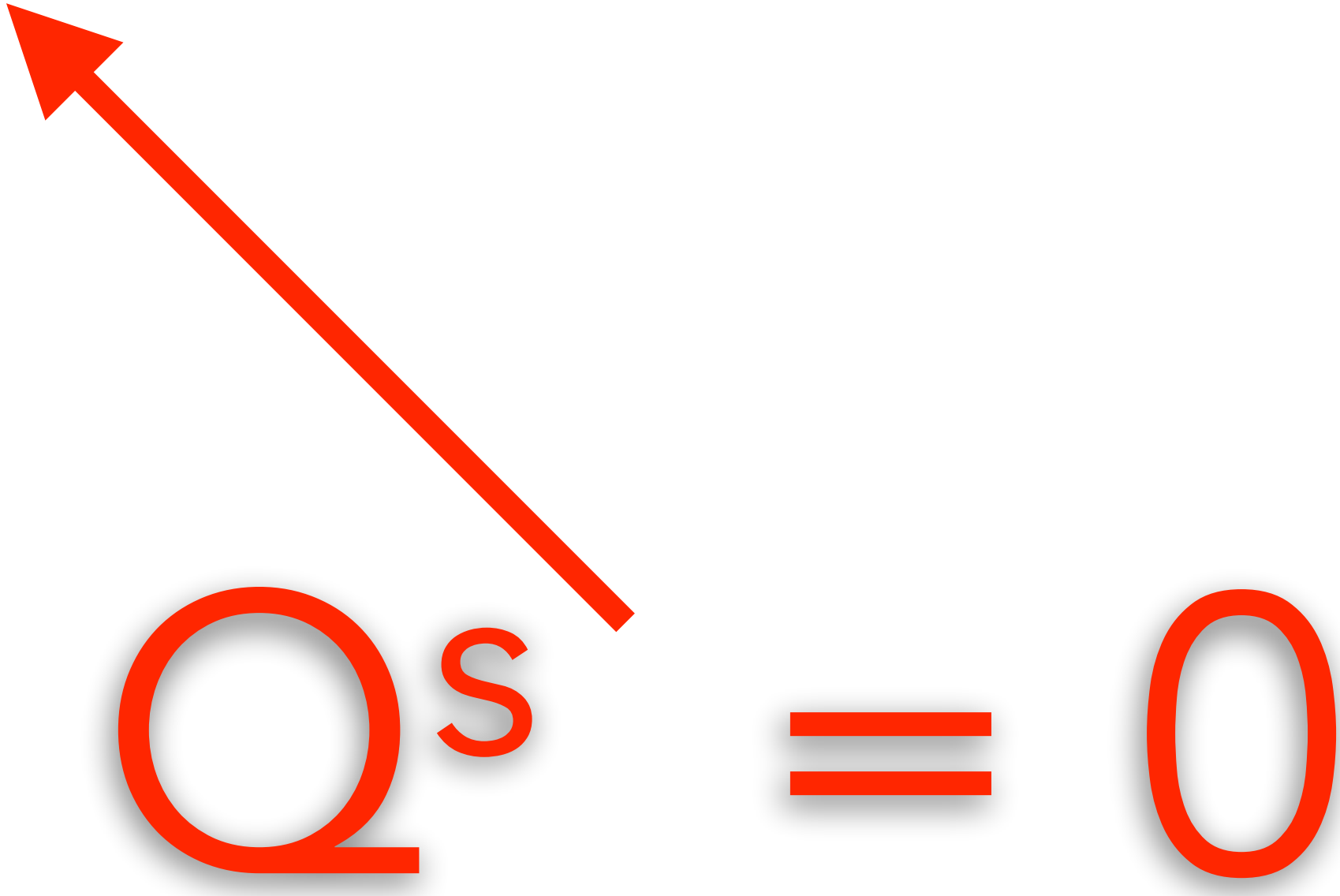


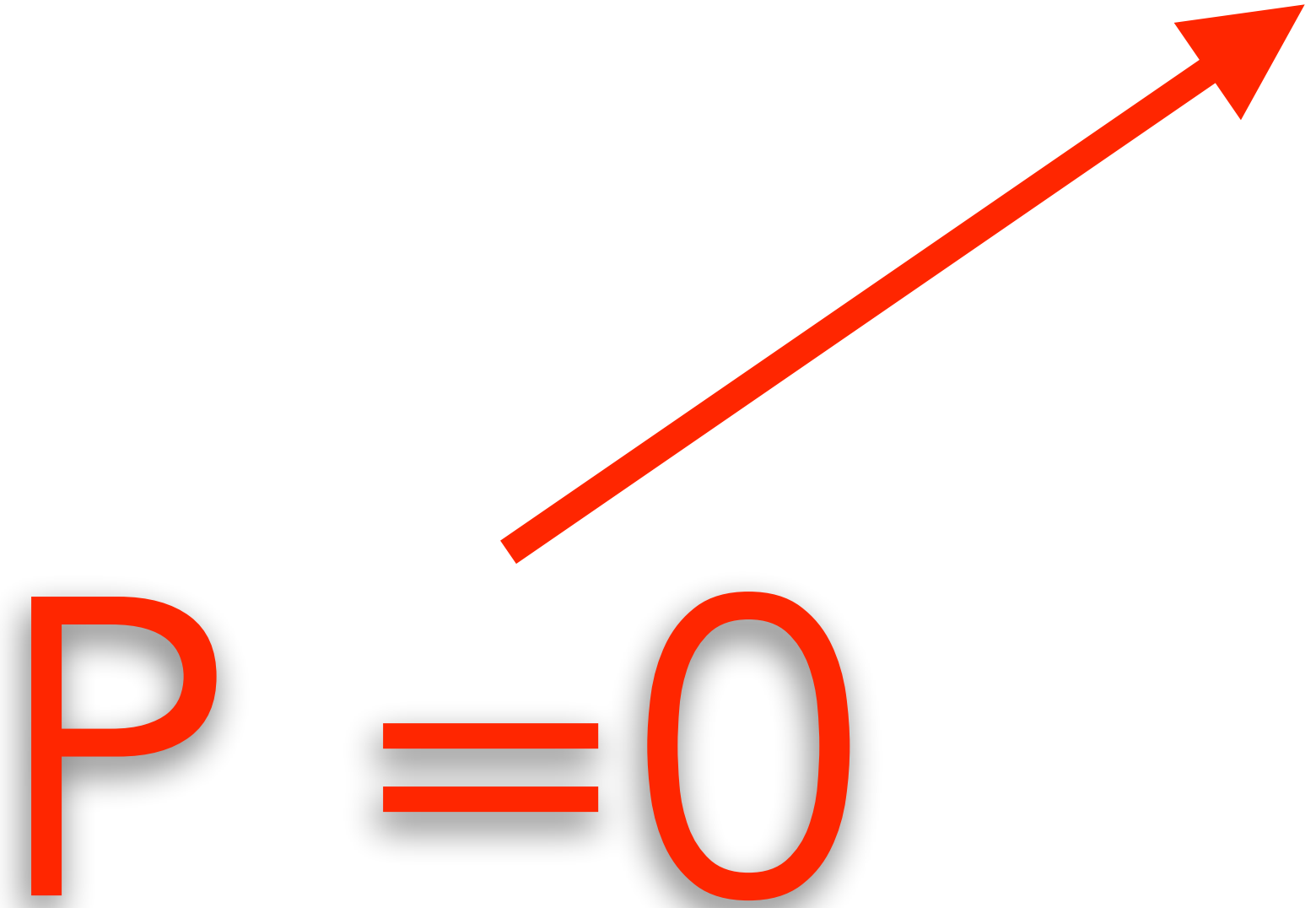

New Supply

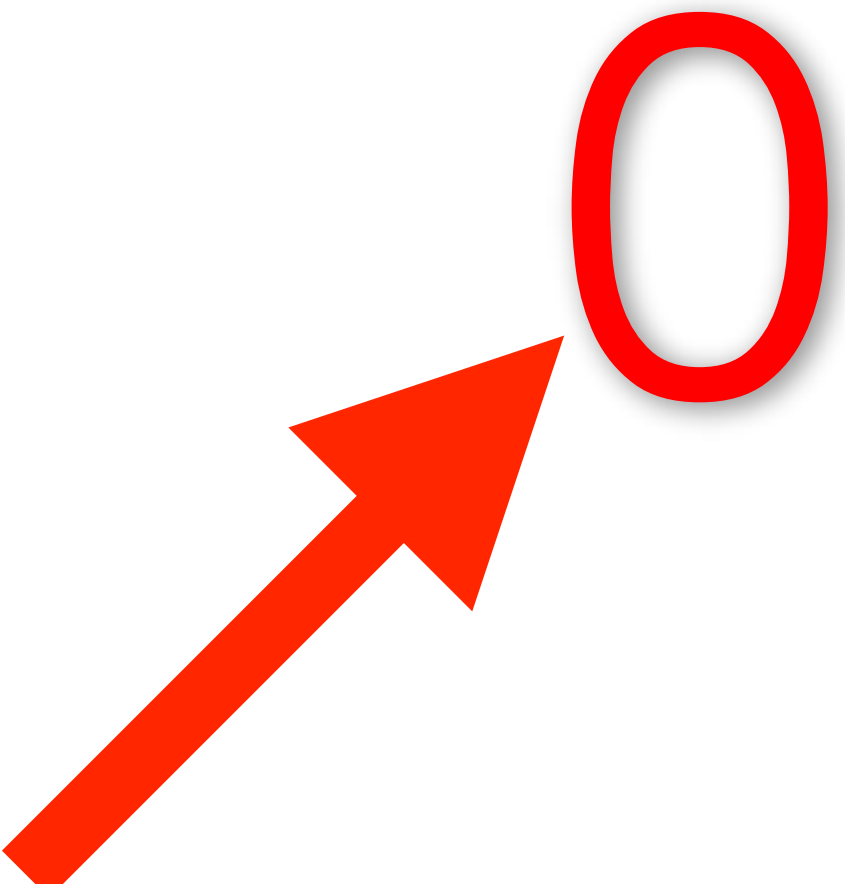
$$0 = -9 + 4.5P$$

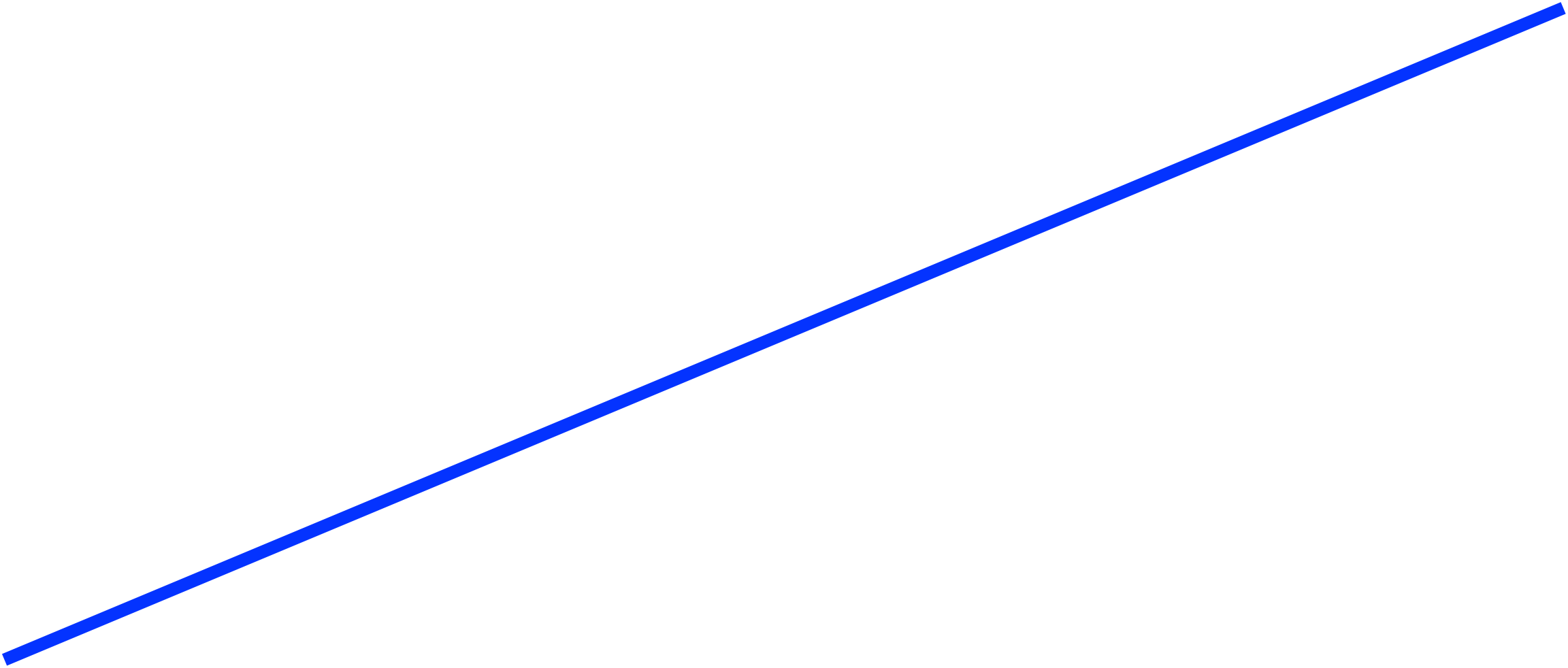
$$9 = 4.5P$$

$$P = 9/4.5$$


$Q_s = 0$


P =0


0



$$Q^S = -10 + 5P$$

Producers sell 10% fewer units at all prices

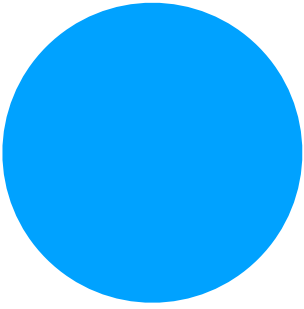
$$Q^s = (-10 + 5P)\ (0.9)$$

$$Q^S = -10(0.9) + 5P(0.9)$$

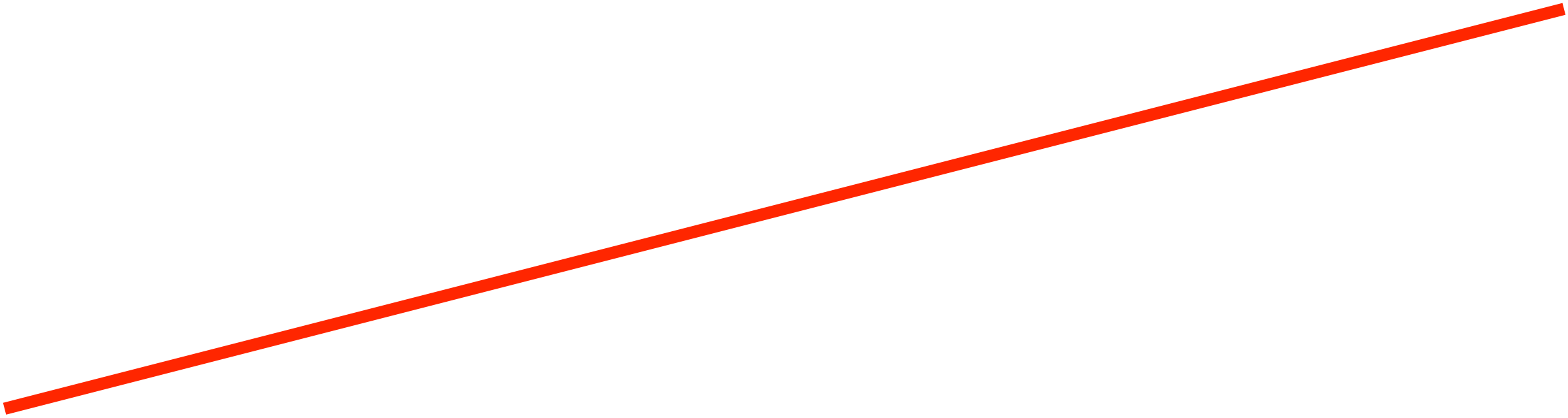
This is the new Supply line

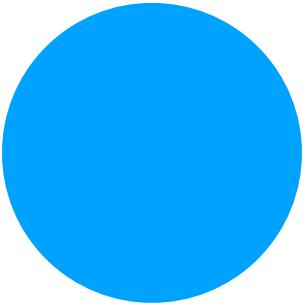
$$Q^{S} = -10$$

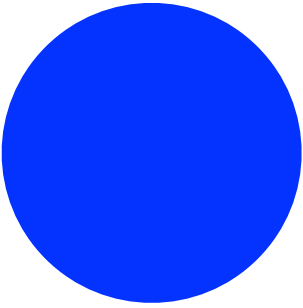
Original Supply



$$P = 2$$

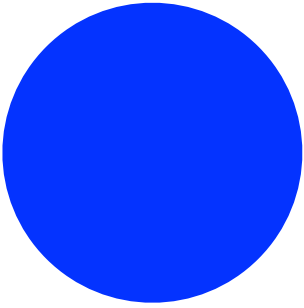


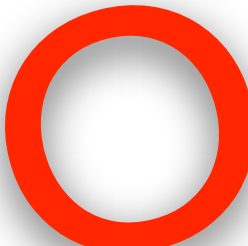


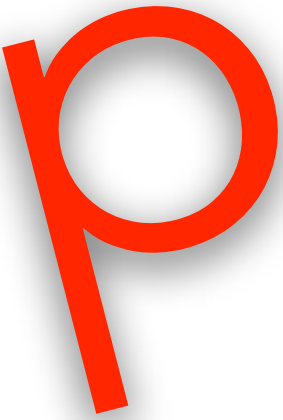


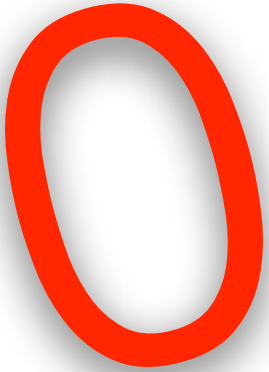
$$Q^S = -9 + 4.5P$$

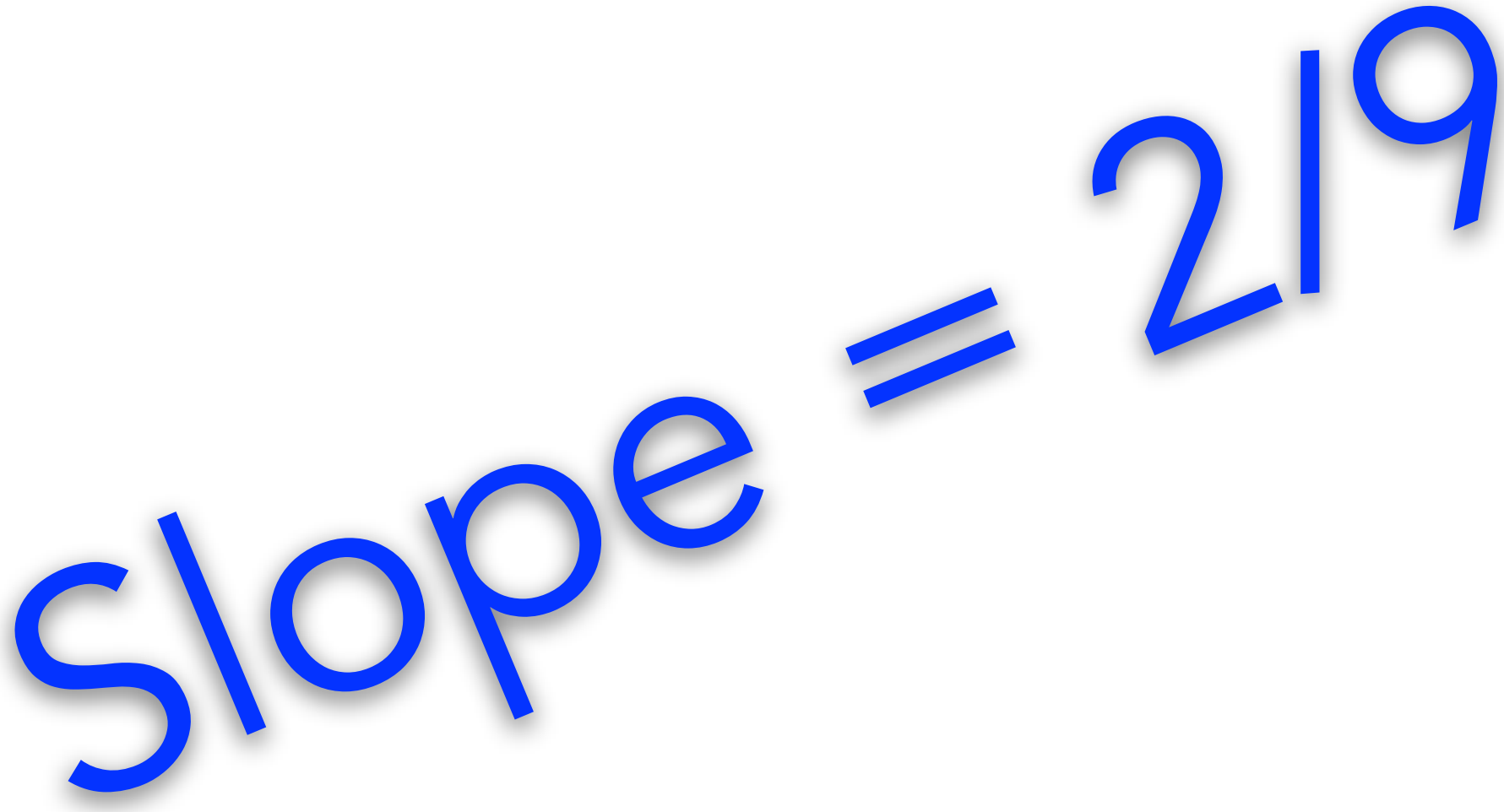
$$P = 2$$

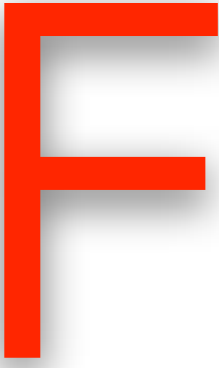




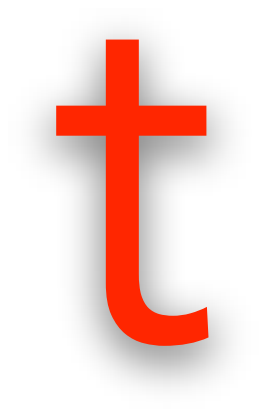


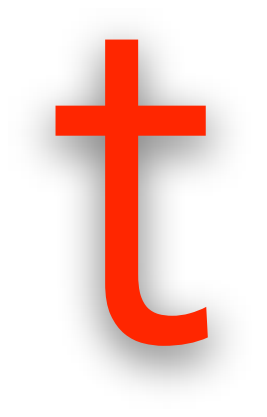


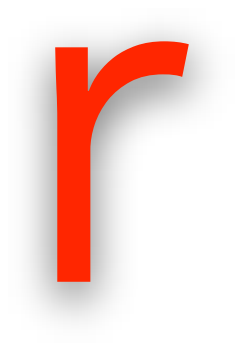

slope = 219

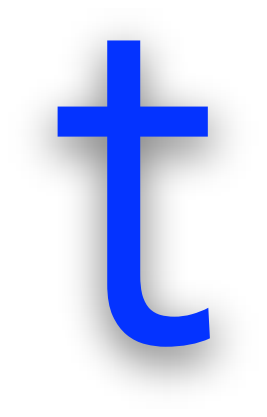


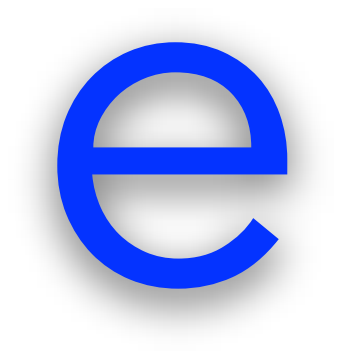

a

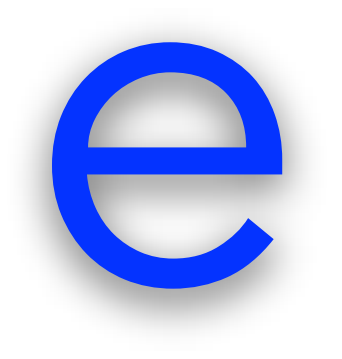


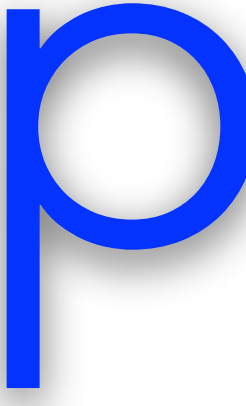


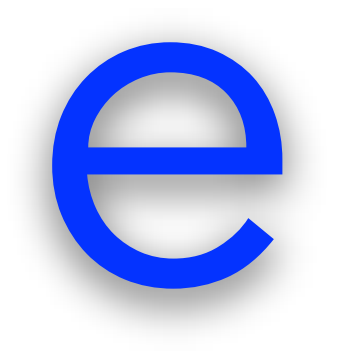


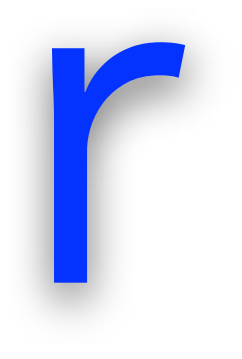


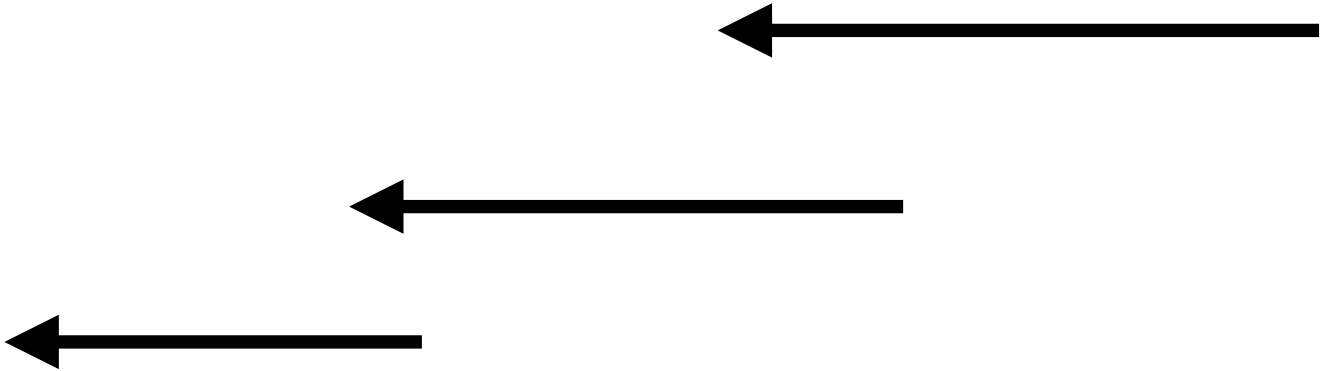












NOT a parallel shift

Slope = 2/10

Flatter

Steeper

Producers sell 10% fewer units at all prices

$Q^s = -10 + 5P$

$Q^s = (-10 + 5P)\ (0.9)$

$Q^s = -10\ (0.9) + 5P\ (0.9)$

$Q^s = -9 + 4.5P$

If $Q^s = 0$

$0 = -9 + 4.5P$

$9 = 4.5P$

$P = 9/4.5$

$P = 2$