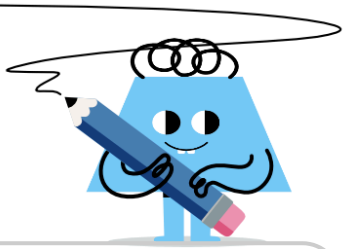
Name

Quadratic Equation Word Problem To Optimization (x) - Profit by Volume



1 Given this equation for profit as a function of production volume, what is the optimal volume?

$$P(v) = -4v^2 + 7v + 5$$

A	B
$v = 2.125$	$v = 0.875$

2 Given this equation for profit as a function of production volume, what is the optimal volume?

$$P(v) = -7v^2 + 7v + 5$$

A	B
$v = 0.5$	$v = 2.5$

3 Given this equation for profit as a function of production volume, what is the optimal volume?

$$P(v) = -10v^2 + 4v + 9$$

A	B	C
$v = 0.2$	$v = 4.2$	$v = 1.2$

4 Given this equation for profit as a function of production volume, what is the optimal volume?

$$P(v) = -7v^2 + 3v + 2$$

A	B
$v = 0.214$	$v = 1.214$
C	
$v = 4.214$	

5 Given this equation for profit as a function of production volume, what is the optimal volume?

$$P(v) = -5v^2 + 7v + 9$$

A	B	C
$v = 0.7$	$v = 1.3$	$v = 2.7$

6 Given this equation for profit as a function of production volume, what is the optimal volume?

$$P(v) = -5v^2 + 11v + 4$$

A	B	C
$v = 2.1$	$v = 0.9$	$v = 1.1$

7 Given this equation for profit as a function of production volume, what is the optimal volume?

$$P(v) = -11v^2 + 4v + 3$$

A	B
$v = 0.182$	$v = 4.818$
C	
$v = 3.818$	

8 Given this equation for profit as a function of production volume, what is the optimal volume?

$$P(v) = -11v^2 + 5v + 8$$

A	B
$v = 3.773$	$v = 0.227$
C	
$v = 0.773$	