2.19

P	$N(p)$
400	300
$400+10=410$	$296=300-4$
$400+2\cdot10=420$	$292=300-2\cdot4$

$450 \longrightarrow N(450) = 300 - \frac{450-400}{10}\cdot 4$

$p = 450$

$p - 400 = 50$

$\frac{p-400}{10} = \frac{50}{10} = 5$

$= 300 - 5\cdot 4$

$= 280$

Nbre d'augmentation de 10.-

$$N(p) = 300 - \frac{p-400}{10}\cdot 4$$

b) chiffre

$$N(p) \cdot p = \left(300 - \frac{p-400}{5} \cdot 4\right)^2 \cdot p$$

nombre ↑ prix ↑

$$= \left(800 - \frac{2p-800}{5}\right) p$$

$$= \left(300 - \frac{2}{5}p + 160\right) \cdot p$$

$$= \boxed{-\frac{2}{5}p^2 + 460p}$$

$a < 0$ concave ↑ MAX

$$-\frac{2}{5}x^2 + 460x$$

$$S\left(-\frac{b}{2a} ; -\frac{\Delta}{4a}\right)$$