N belongs to [CB] } given.
In the triangle ABC. M belongs to [CA]

(MN) // (AB) (opposite sides in a rectangle are parallel and A, P, B are collinear given)

so by thales' Theorem $\frac{CN}{CB} = \frac{CM}{CA} = \frac{MN}{AB}$ $\frac{3}{4}$

$CM = CA - AM$ (given collinear points) **Note** don't remove for forgetting collinear points.

$= 2 - x$

$\frac{1}{2}$ $MN = AP$ (opposite sides of the rectangle)

Thus $\frac{2-x}{2} = \frac{AP}{3}$ so $AP = \frac{3(2-x)}{2} = \frac{6-3x}{2} = 3 - 1.5x$ (b)

3. $\begin{cases} 3\sqrt{x} - 2\sqrt{y} = 4 \\ 3\sqrt{x} + 2\sqrt{y} = 8 \end{cases}$

$X \geq 0$ $Y \geq 0$

$\frac{1}{4}$ let $X = \sqrt{x}$ & $Y = \sqrt{y}$

the above system becomes

$\oplus \begin{cases} 3X - 2Y = 4 \\ 3X + 2Y = 8 \end{cases}$

by elimination

$6X = 12$

$X = 2$

In case condition is not totally right remove $\frac{1}{4}$.

Substitute X by its value in eq (2)

$3 \times 2 + 2Y = 8$

$6 + 2Y = 8$

$2Y = 2$

$Y = 1$

$\frac{3}{4}$ system.

so $\sqrt{x} = X = 2$

$\sqrt{y} = Y = 1$

Thus $x = 4$ accepted and $y = 1$ accepted. $\frac{1}{4}$

$\sqrt{x^3 - 60y^3} = \sqrt{4^3 - 60(1)^3} = \sqrt{64 - 60} = \sqrt{4} = 2$ $\frac{1}{4}$ (a)

4. $x \xrightarrow{-20\%} z \xrightarrow{+25\%} y$

initial price — final price

$y = \left(1 - \frac{20}{100}\right)\left(1 + \frac{25}{100}\right) x$

$y = 0.8 \times 1.25\ x$

$y = x = 1(x)$ (1)

Since $a = 1$ $\frac{1}{4}$

So the final price is equal to the initial price (c) $\frac{1}{4}$.