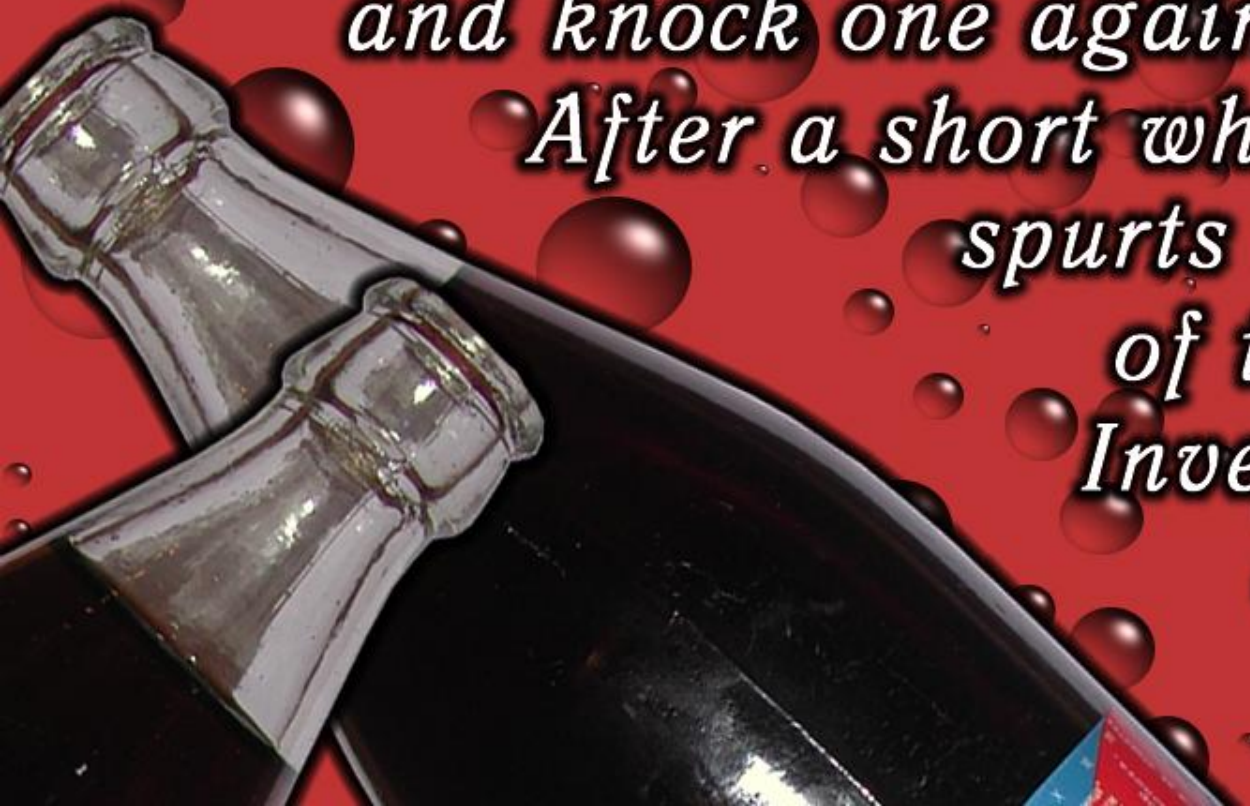
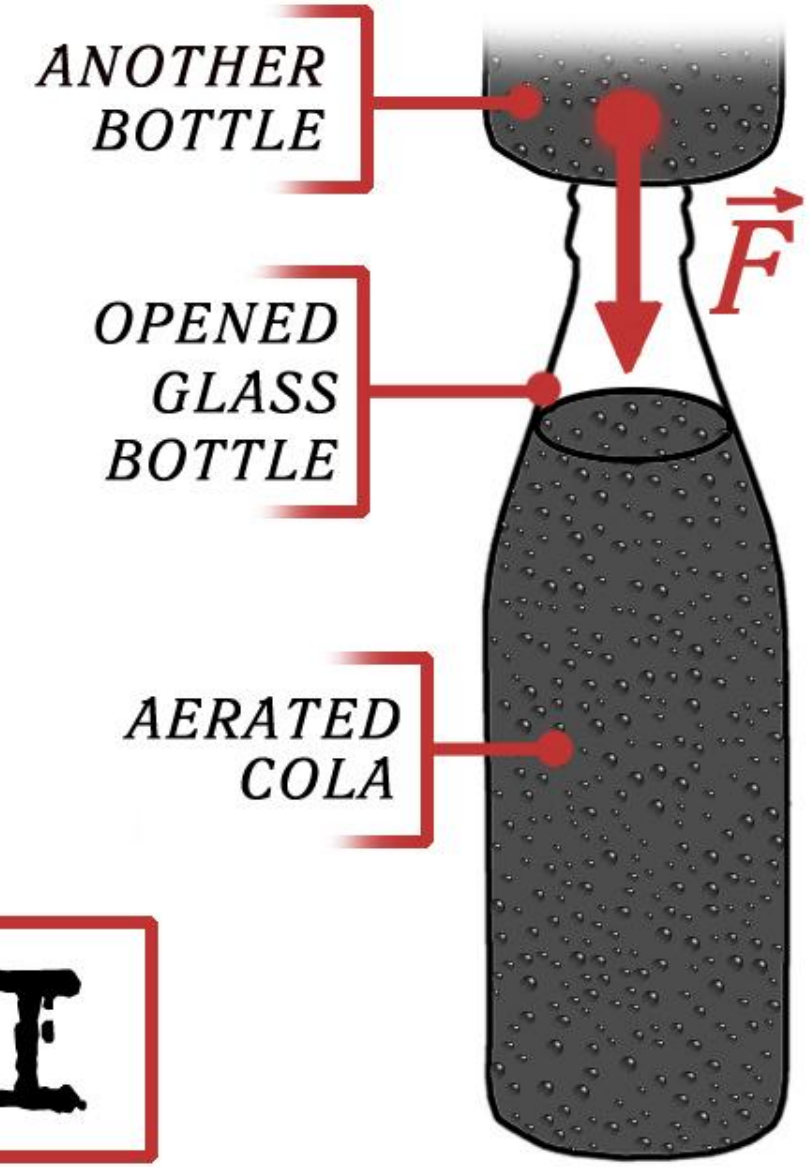
TEAM BELARUS PRESENTS...

BOTTLE BATTLE

Take two opened glass bottles of cola and knock one against the other. After a short while, the cola spurts out of one of the bottles. Investigate and explain the phenomenon.



BOTTLE BATTLE



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BOTTLE BATTLE

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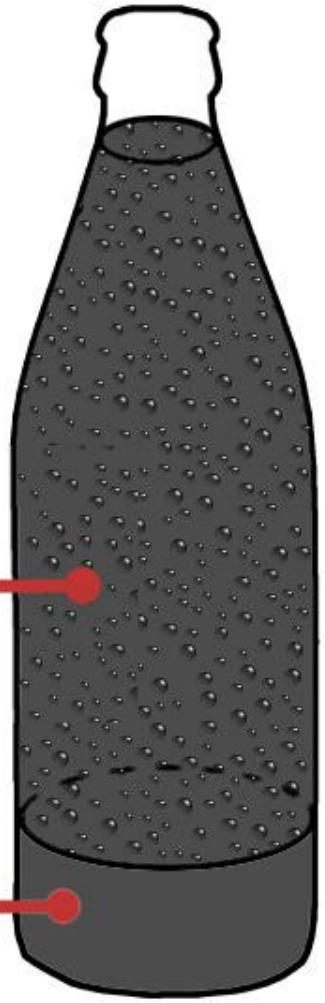
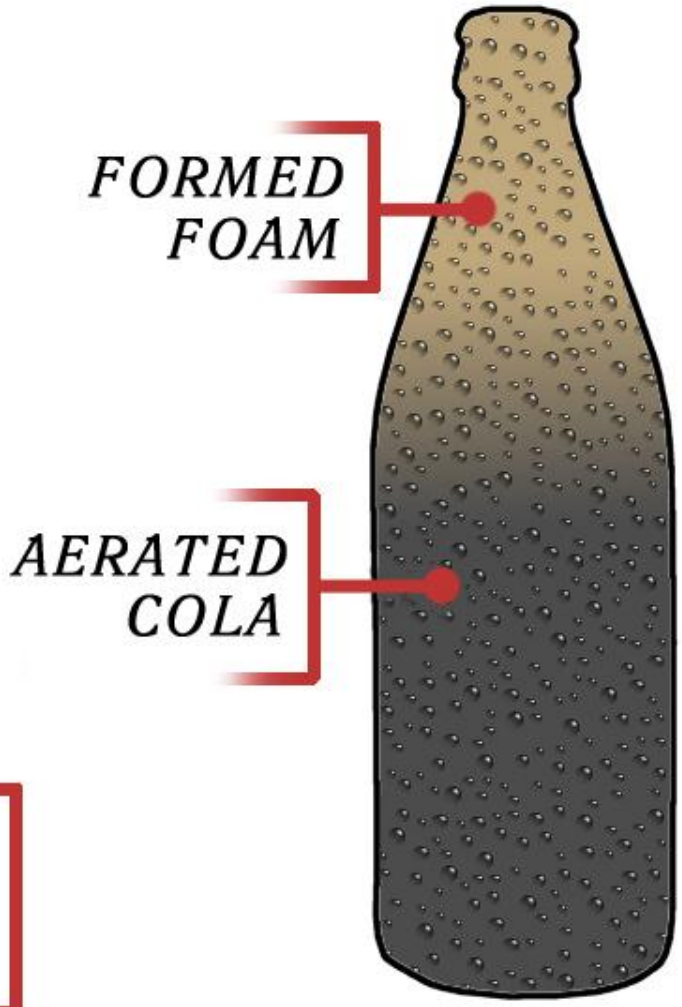


BOTTLE BATTLE



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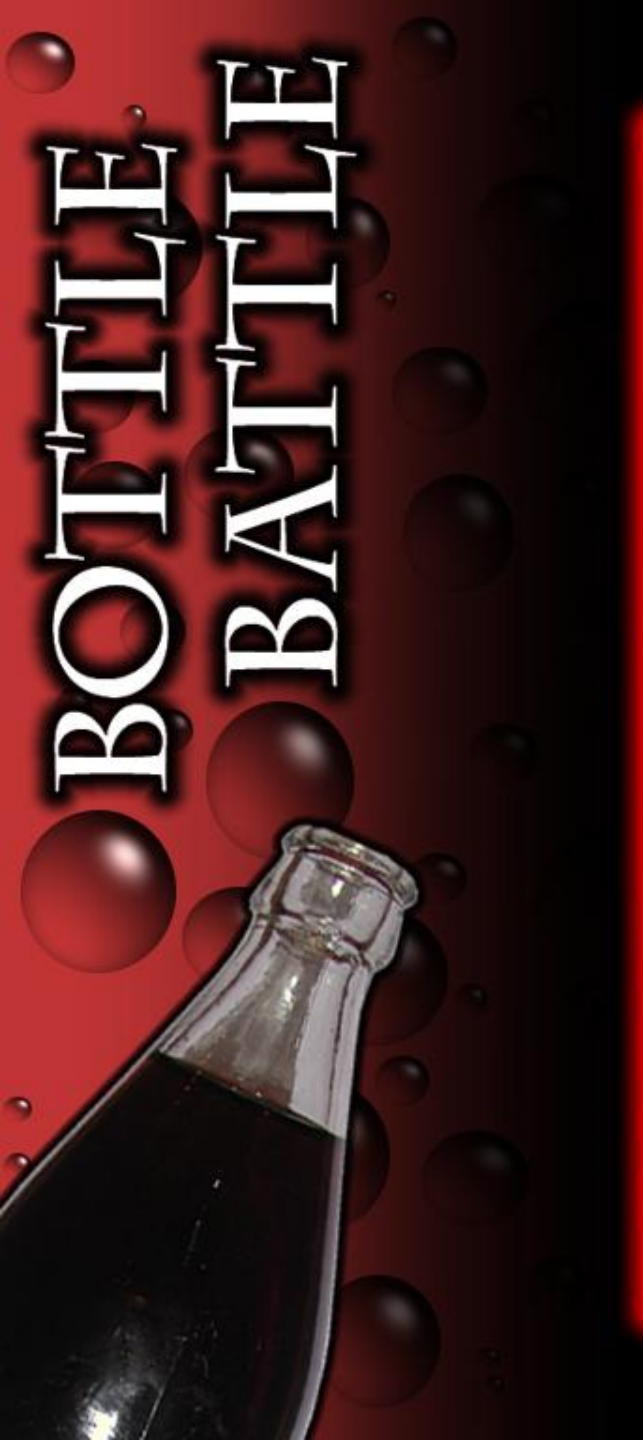
BOTTLE BATTLE

BOTTLE BATTLE



BOTTLE BATTLE

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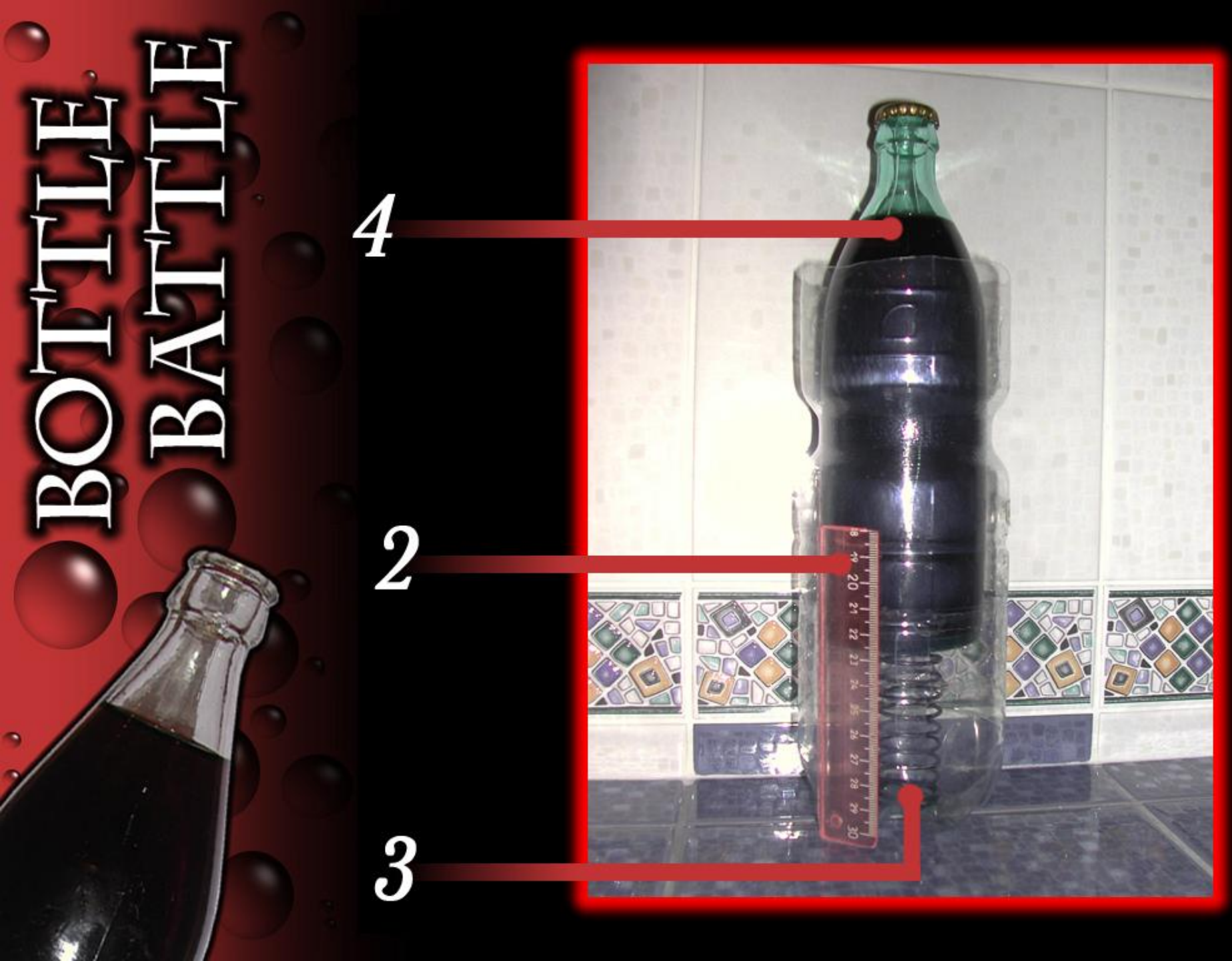

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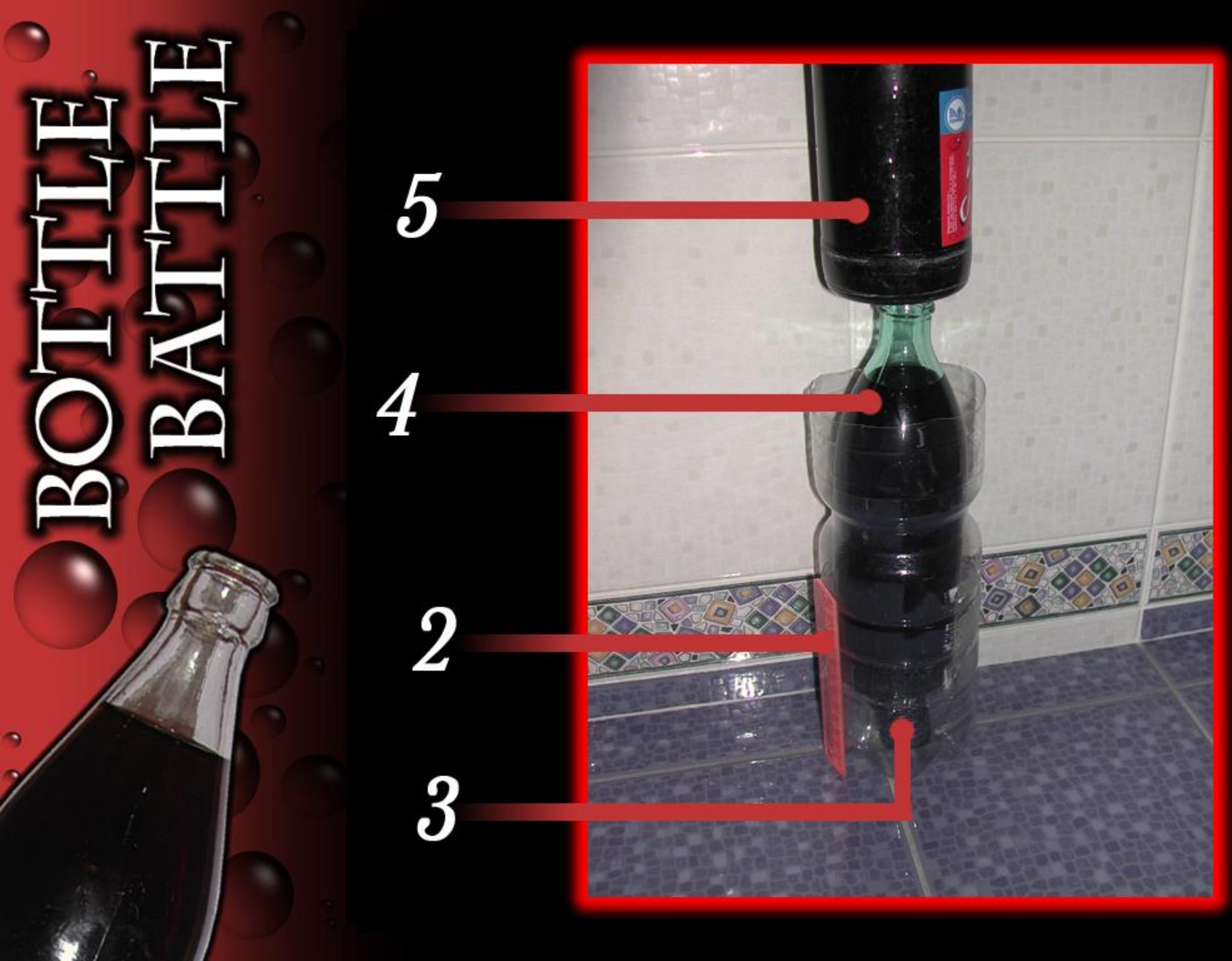

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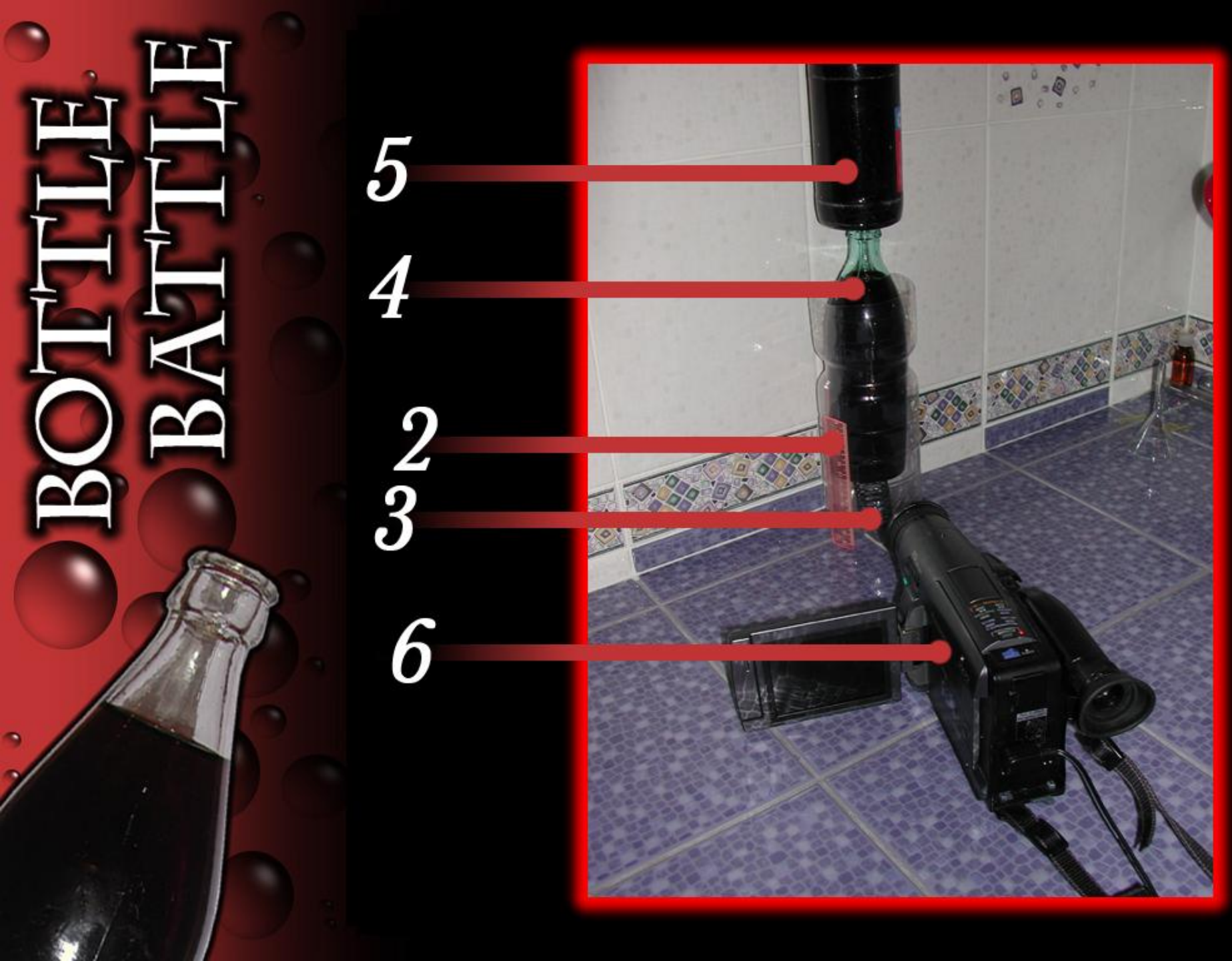
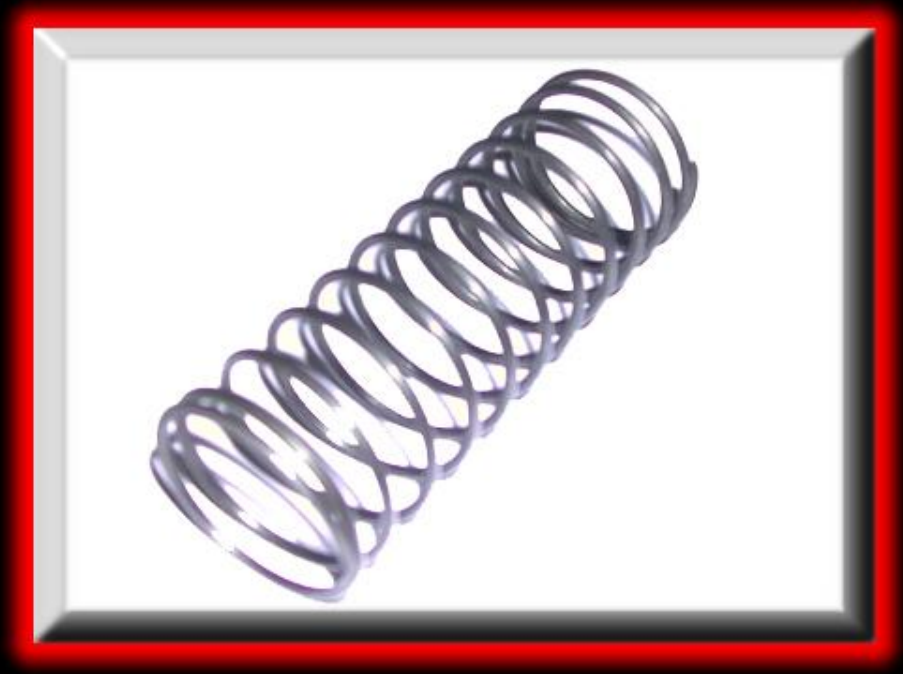


BOTTLE BATTLE

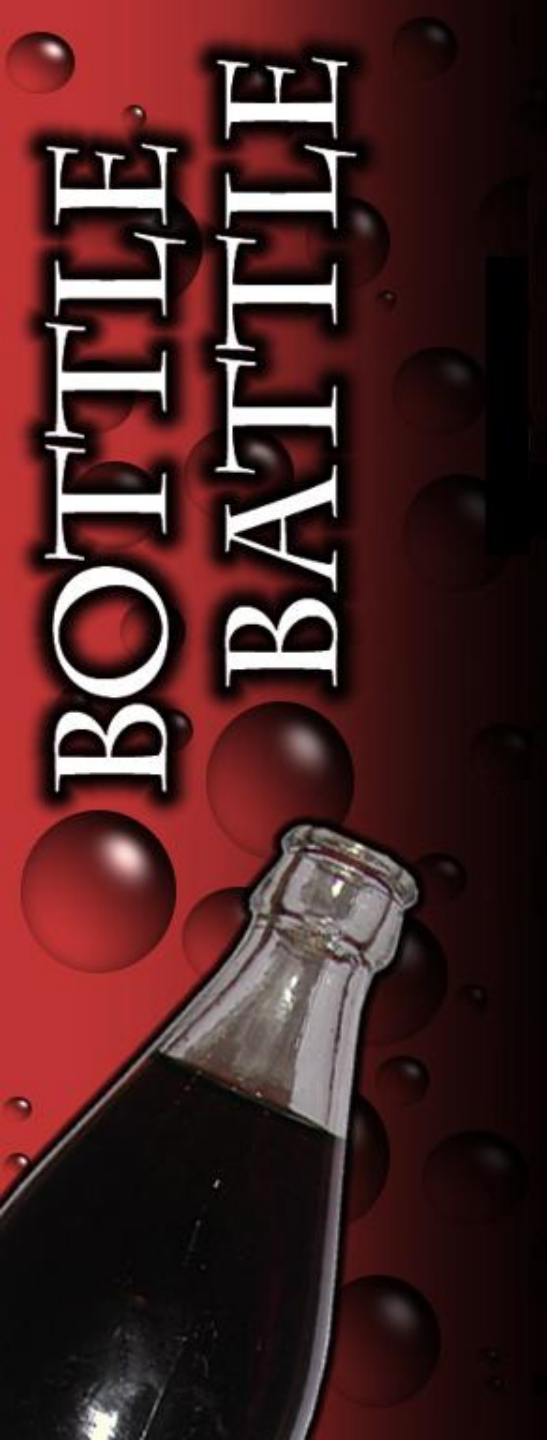
$$k = 470\ {}^{N}/_{m} \qquad (1.1)$$

$$l = 9 * 10^{-2} m \qquad (1.2)$$



BOTTLE BATTLE

$$m = 0.9\,kg \qquad (1.3)$$



$$\frac{mv^2}{2} = \frac{kx^2}{2} \qquad (1.4)$$

$$v_0 = A\sqrt{\frac{k}{m}} \qquad (1.5)$$

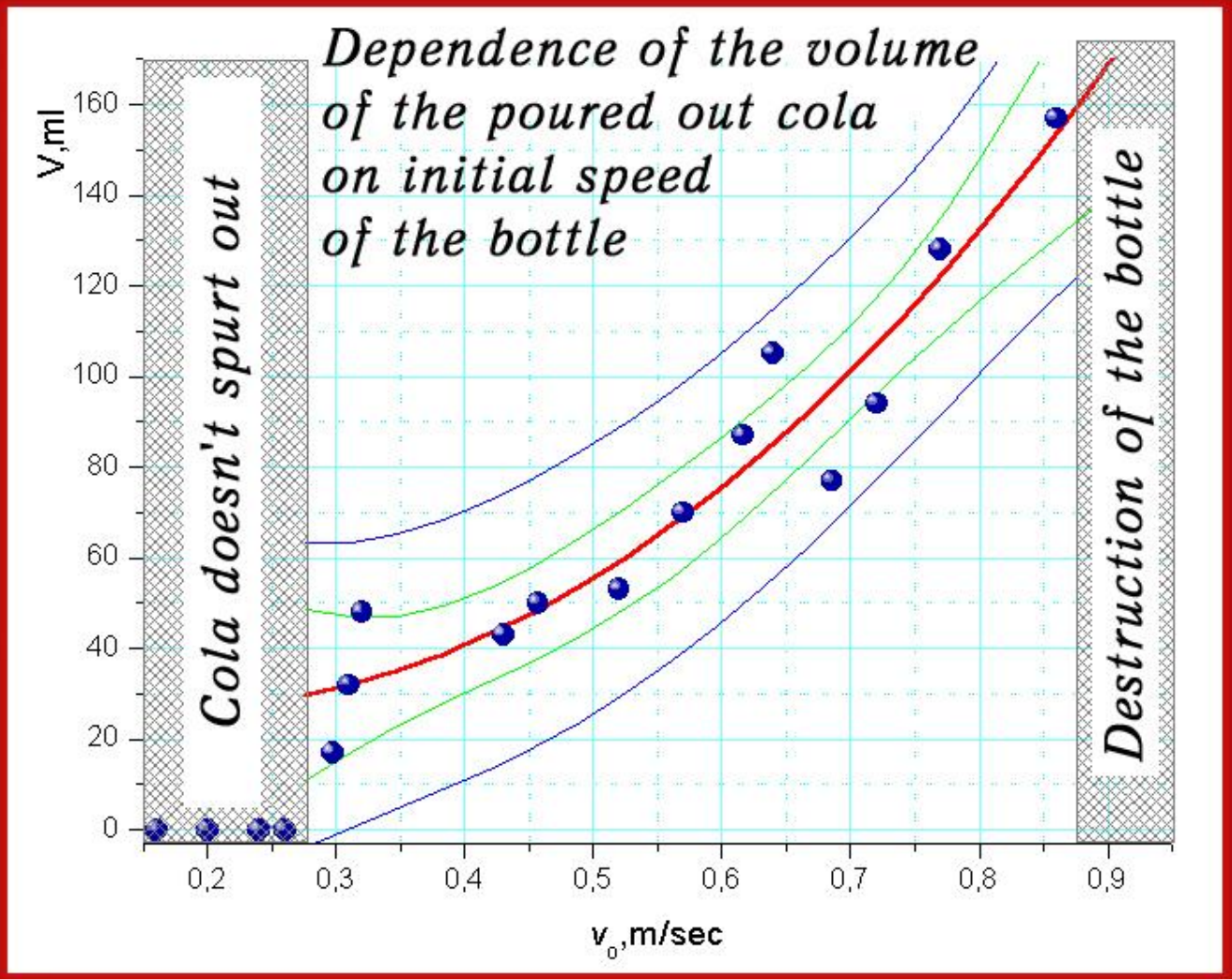
v_0 – initial speed of the bottle

A – amplitude of the spring's oscillations

BOTTLE BATTLE

BOTTLE BATTLE

BOTTLE BATTLE



BOTTLE BATTLE

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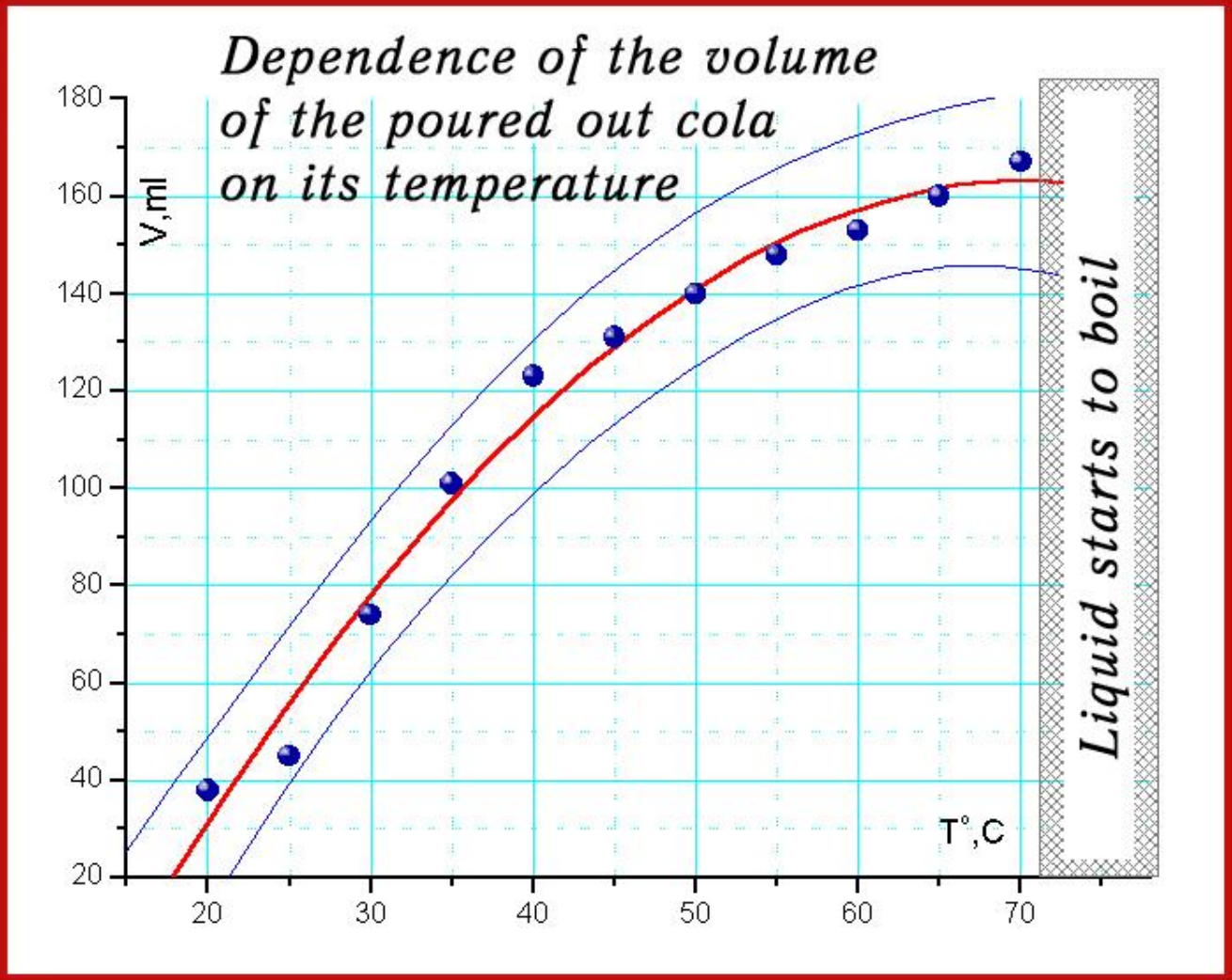

BOTTLE BATTLE

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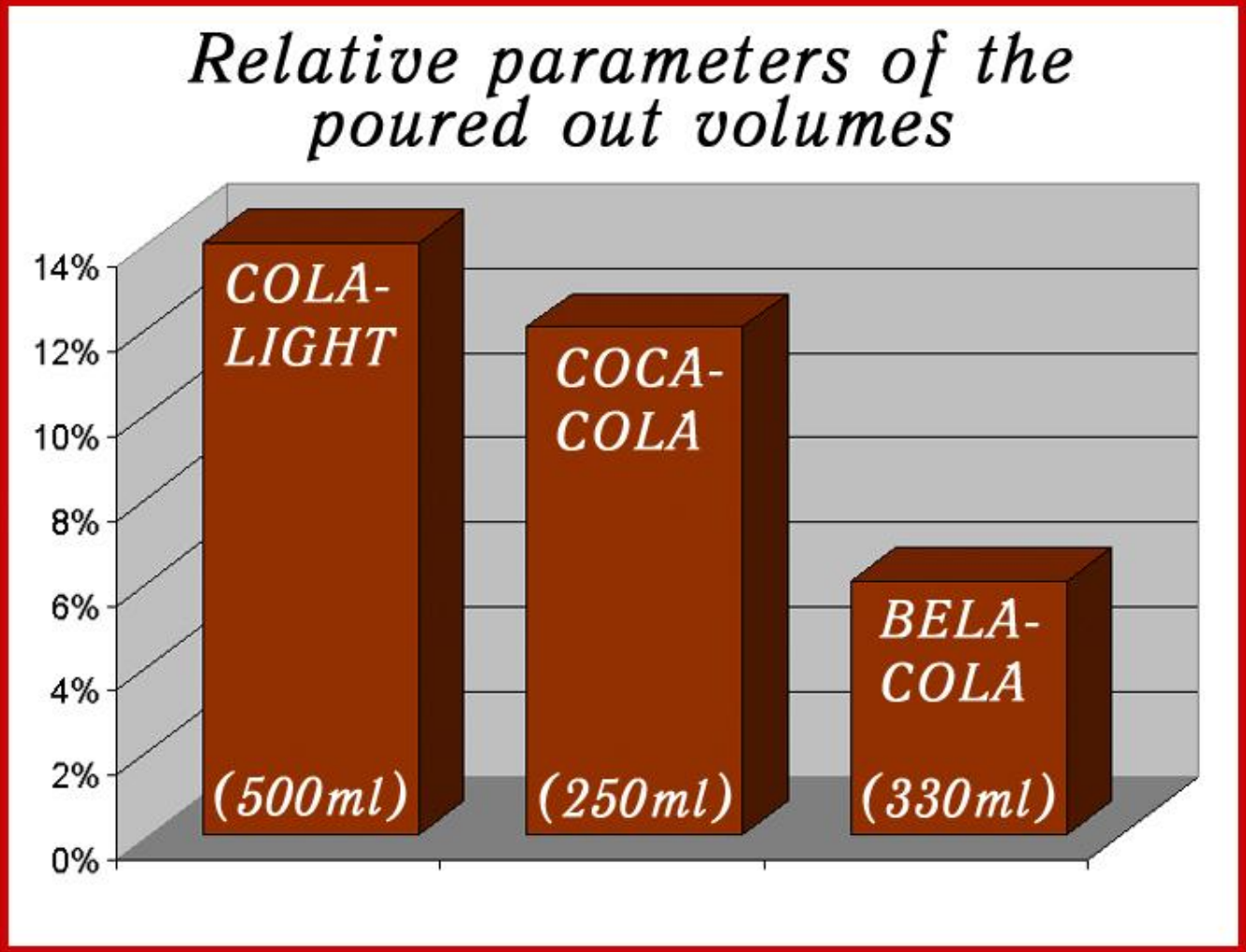

BOTTLE BATTLE

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THANKS FOR ATTENTION