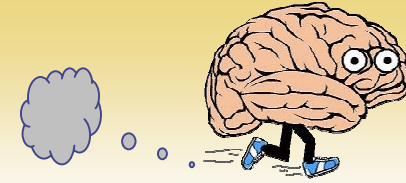
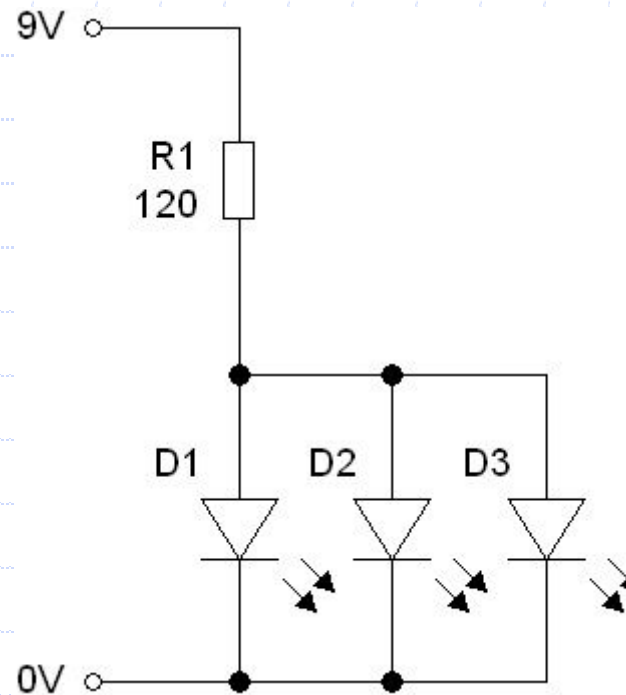
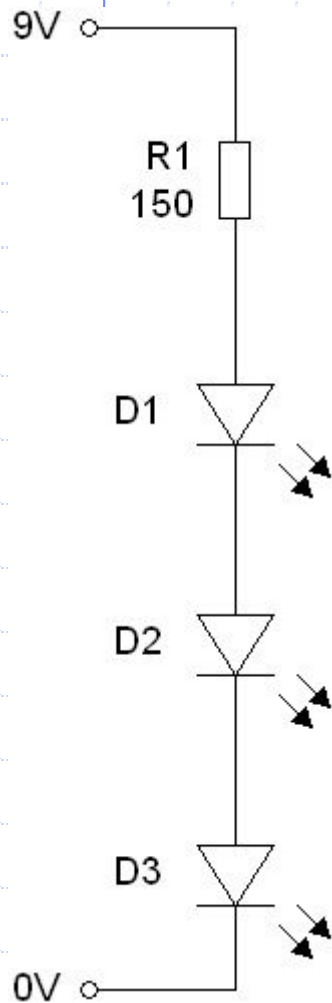


QUIK THINKAZ

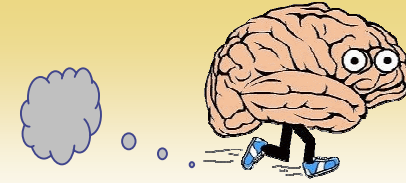


Work out the power dissipated by the resistor in the following 2 circuits.
All LEDs have a forward voltage of 2v

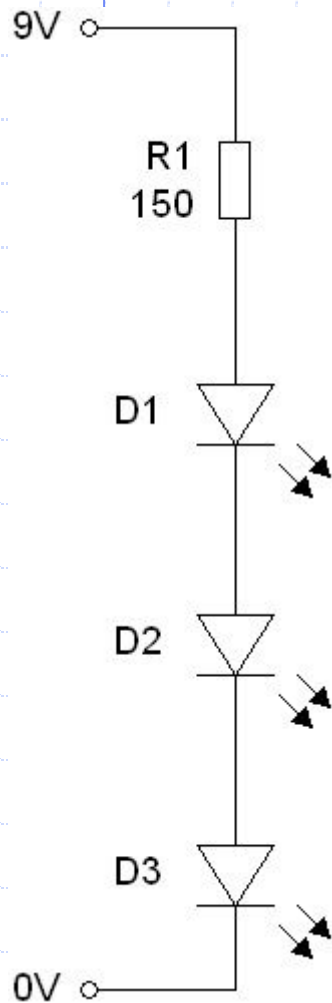


Which circuit is the most efficient and why?

QUIK THINKAZ



Work out the power dissipated by the resistor R1 in the following 2 circuits.
All LEDs have a forward voltage of 2v



Calculate current

$$I = V / R$$

$$I = 3 / 150$$

$$I = 0.02A$$

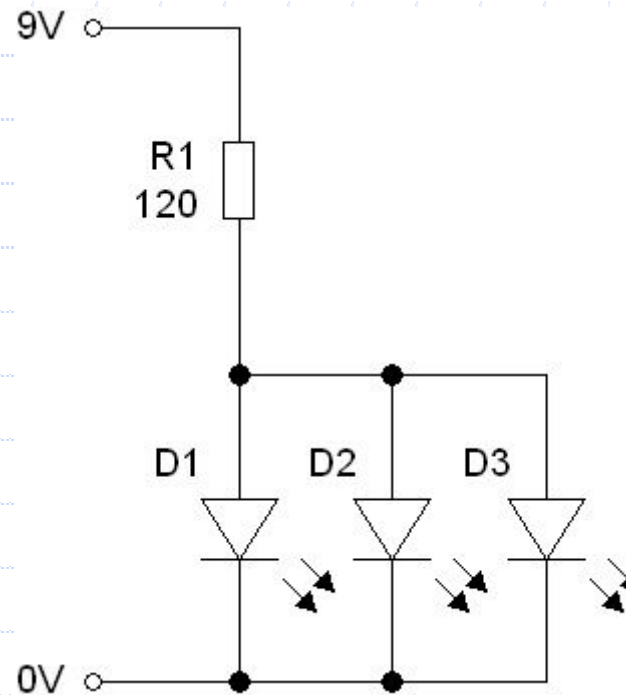
Calculate Power

$$P = I \times V$$

$$P = 0.02 \times 3$$

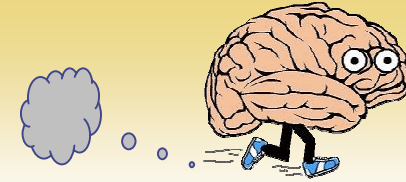
$$P = 0.06W$$

or **60mW**



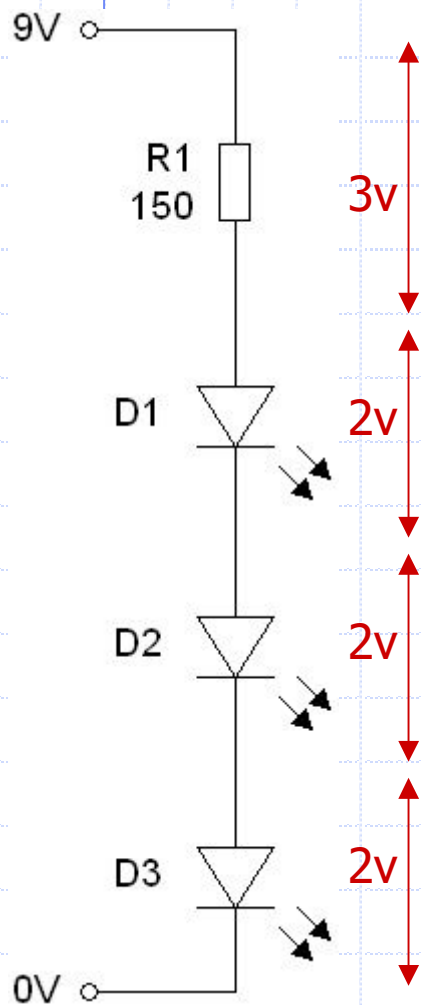
Which circuit is the most efficient and why?

QUIK THINKAZ

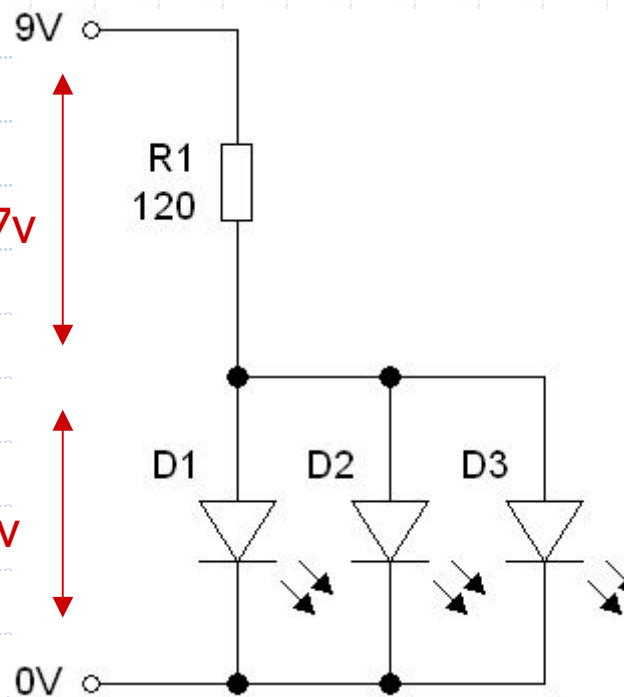


Work out the power dissipated by the resistor in the following 2 circuits.

All LEDs have a forward voltage of 2v



Power = **60mW**



Calculate current

$$I = V / R$$

$$I = 7 / 120$$

$$I = 0.058A$$

Calculate Power

$$P = I \times V$$

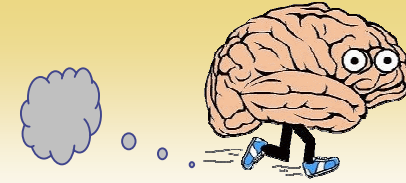
$$P = 0.058 \times 7$$

$$P = 0.406W$$

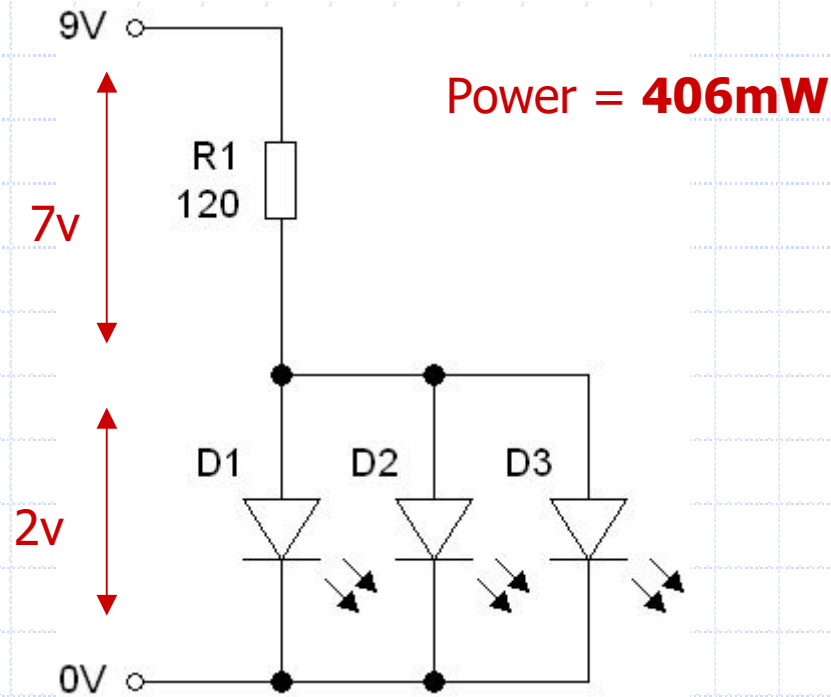
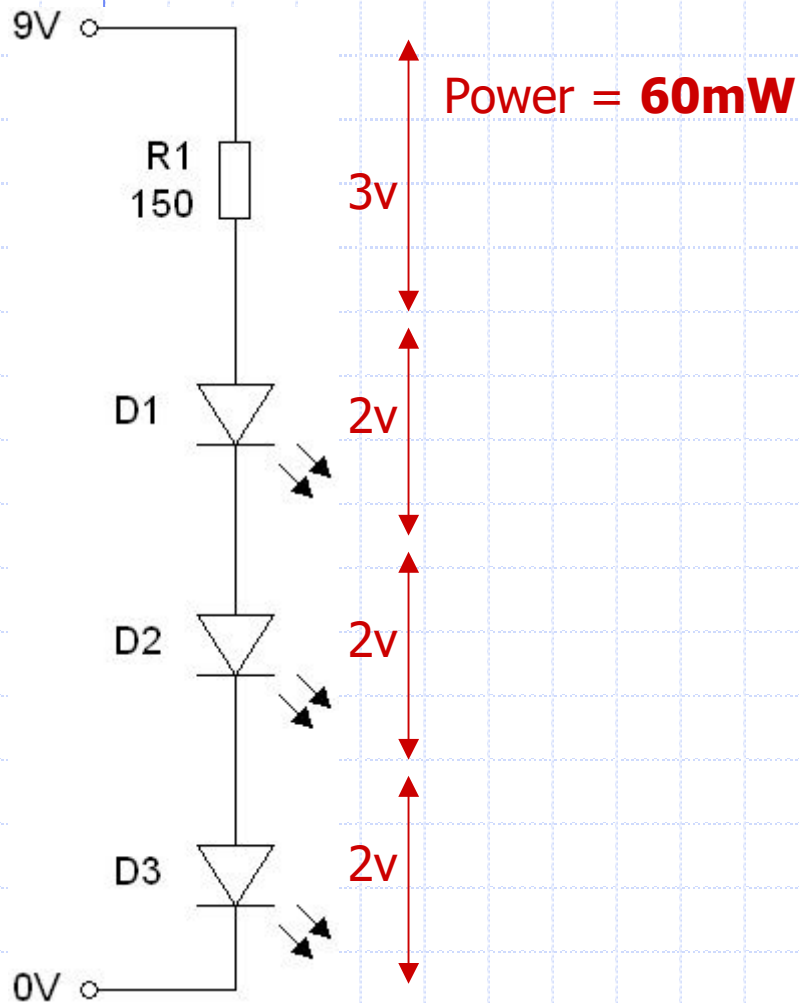
or **406mW**

Which circuit is the most efficient and why?

QUIK THINKAZ



Work out the power dissipated by the resistor in the following 2 circuits.
All LEDs have a forward voltage of 2v



Which circuit is the most efficient and why?

The first one since less power is lost in the resistor