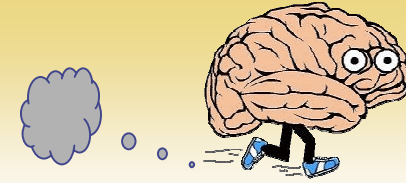
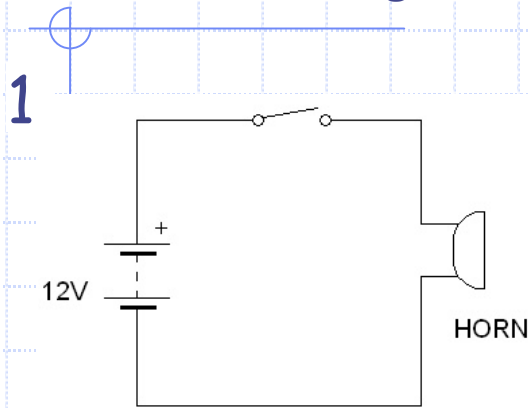


QUIK THINKAZ



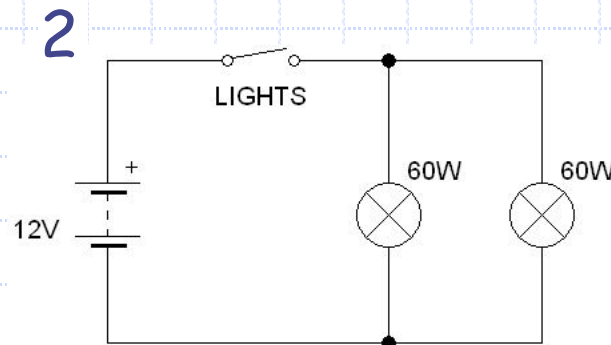
The following circuits can be found in old cars. Answer the following:



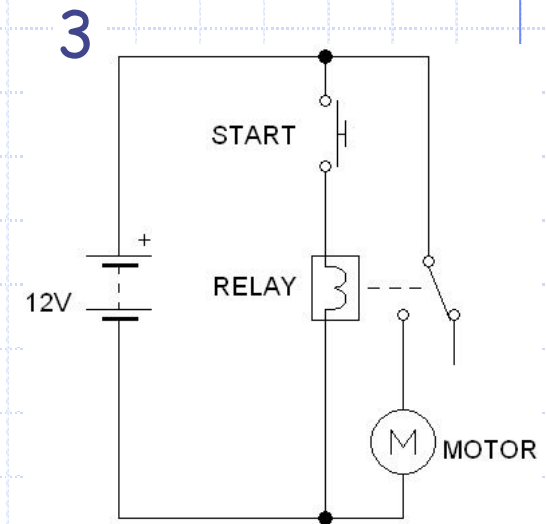
The horn has a resistance of 6 Ohms.

a) What is the current drawn by the horn?

b) How much power is used?



What is the total current drawn by both bulbs?



The motor draws 60 Amps when turning.

a) How much power does the motor use?

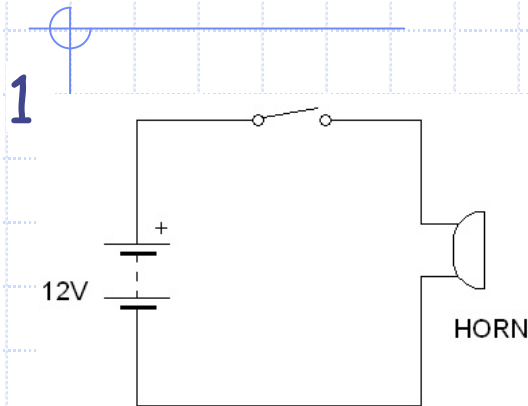
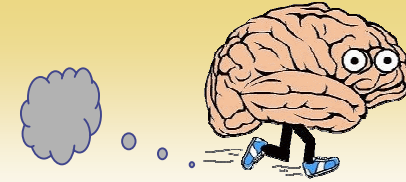
b) Why is a relay needed?

You will need to use these formulas

$$\frac{V}{I R}$$

$$\frac{P}{I V}$$

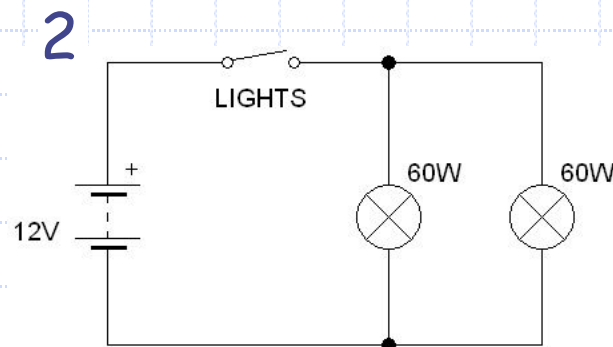
QUIK THINKAZ



The horn has a resistance of 6 Ohms.

a) What is the current drawn by the horn? $12V / 6\Omega = 2A$

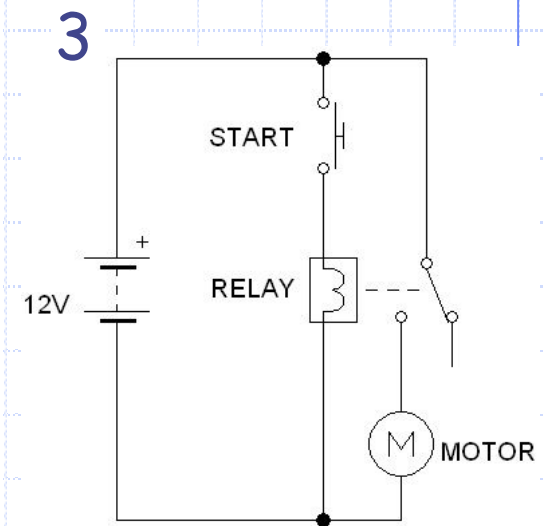
b) How much power is used? $12V \times 2A = 24W$



What is the total current drawn by both bulbs?

$$60W / 12V = 5A$$

$$2 \times 5A = 10A$$



The motor draws 60 Amps when turning.

a) How much power does the motor use?

$$60A \times 12V = 720W$$

b) Why is a relay needed?

High current, too much for key switch

You will need to use these formulas

