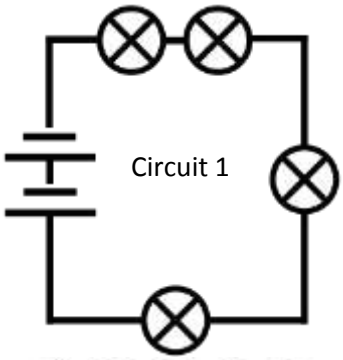
Date_____ **Name**_____

Brightness of bulbs in a circuit

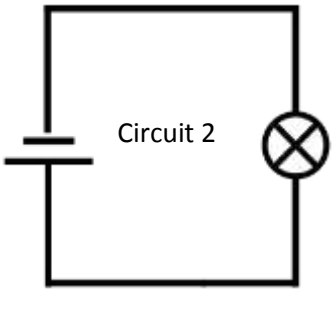
Predict:

Underneath each circuit, predict the brightness of the bulb(s) compared to the other circuits by indicating on the scale. 1 = dimmest to 5 = brightest. Use the (notes) section to state reasons for your predictions. ***N.B. some circuits may have the same brightness and some may not work at all!***



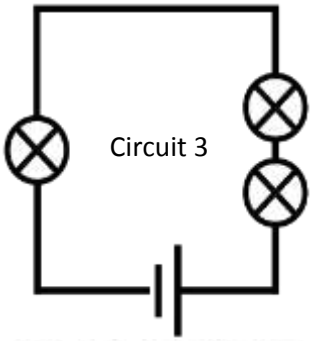
1 2 3 4 5

Notes:



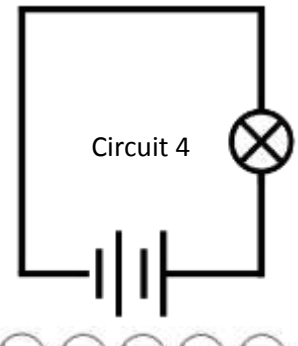
1 2 3 4 5

Notes:



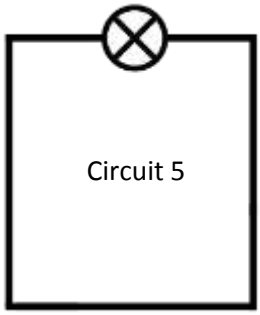
1 2 3 4 5

Notes:



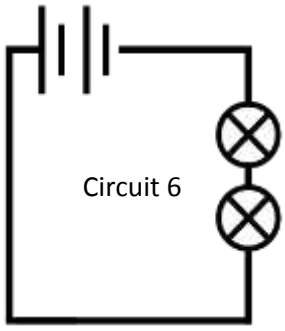
1 2 3 4 5

Notes:



1 2 3 4 5

Notes:



1 2 3 4 5

Notes:

Setting up circuits:

You might like to set up the circuits in your classroom and check whether your predictions were correct. Remember it's important to ensure your results from your observations are fair results. Consider how you would set this up to make this as fair as possible. Ensure you think carefully about how you will measure the brightness of a bulb.

Method:

Results:

Brightness of bulbs in a circuit

In some questions, alternative answers maybe acceptable. The likeliest answers are given below. If questions have more than one answer, teachers should use their own judgement when marking.

Predict:

From dimmest to brightest

Circuit 5 will not work – No battery therefore will fail to operate the bulb.

Circuit 3 has the dimmest bulbs – One battery to operate 3 bulbs.

Circuit 1 is brighter than circuit 3 -It has a ratio of 1 battery to every two bulbs.

Circuit 2 and Circuit 6 both have the same brightness – They both have 1 battery to 1 bulb.

Circuit 4 is the brightest – It has 2 batteries to 1 bulb.