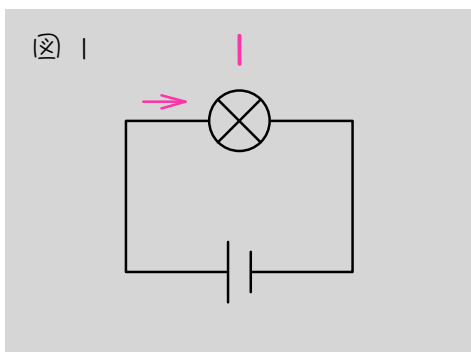
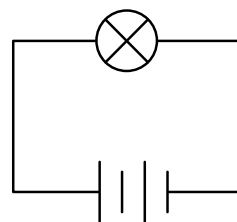


問 図1のとき豆電球に流れる電流の大きさを「1」としたとき、  
次の豆電球1個に流れる電流を図にかきこみなさい。

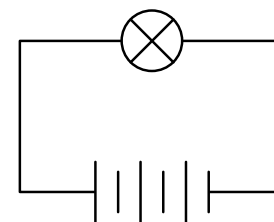


(1)

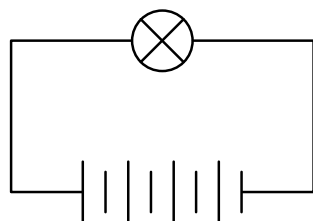


明るく  
なるよ!

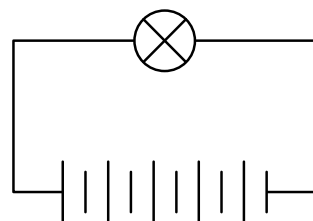
(2)



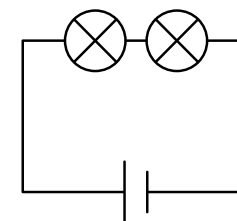
(3)



(4)

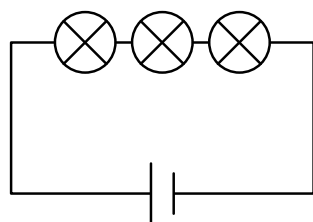


(5)

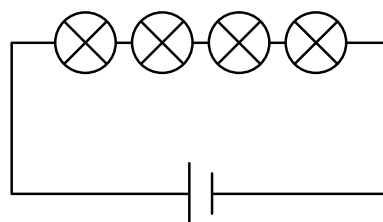


暗く  
なるよ!

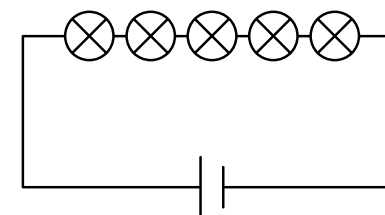
(6)



(7)



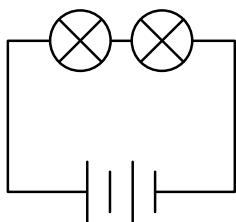
(8)



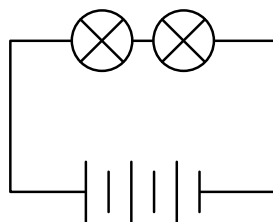
## C H E C K !

- ・ 乾電池がふえると明るくなる → 豆電球に流れる電流が多くなったから。
- ・ 豆電球がふえると暗くなる → 豆電球に流れる電流が少なくなったから。
- ・ ここまでで最も明るいのは(4)。
- ・ ところで、乾電池の数でかけ算、豆電球の数で割り算をしているのに気づいたかな？

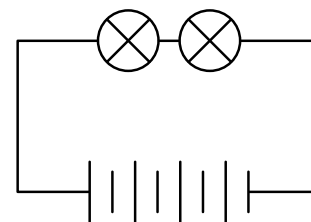
(9)



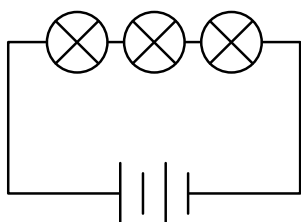
(10)



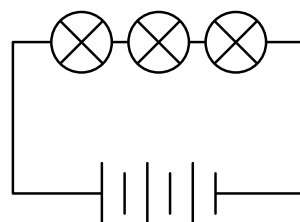
(11)



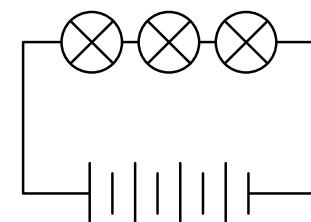
(12)



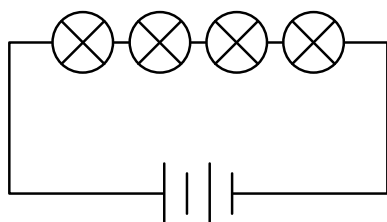
(13)



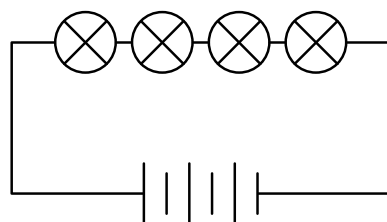
(14)



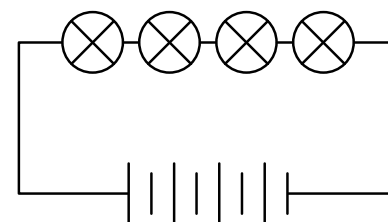
(15)



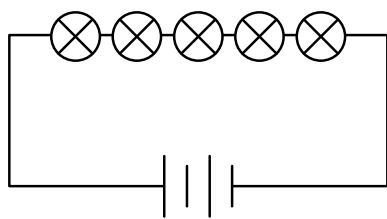
(16)



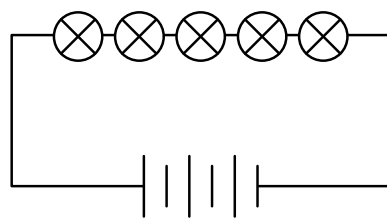
(17)



(18)



(19)



もう気づいたかな？  
次のページで公式を作る  
けど、分かるかな？

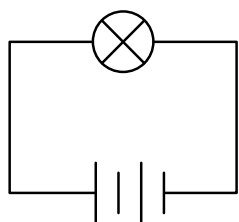
## 豆電球の問題の基本公式

もう気づいているよね！

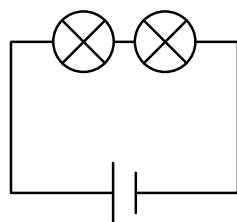
$$\text{豆電球に流れる電流} = 1 \times \text{乾電池の数} \div \text{豆電球の数}$$

↑  
乾電池1個、豆電球1個のときの  
豆電球に流れる電流の大きさです

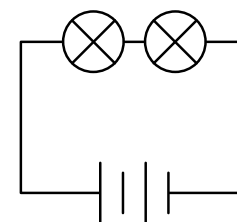
(20)



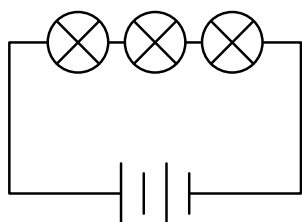
(21)



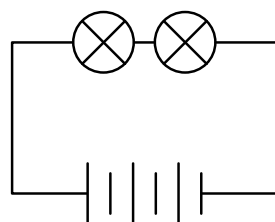
(22)



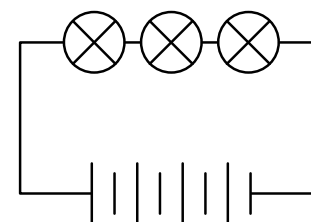
(23)



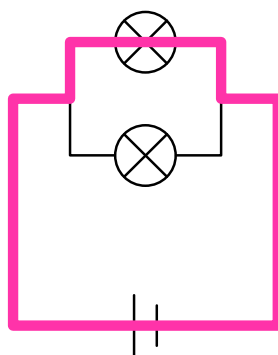
(24)



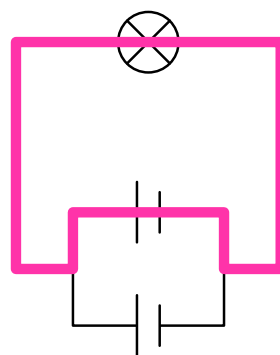
(25)



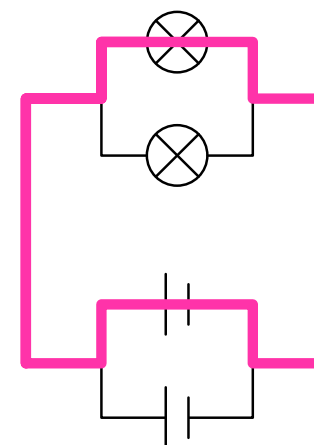
## 一本道 (いっぽんみち)



豆電球が並列のとき、  
一本道で計算します。

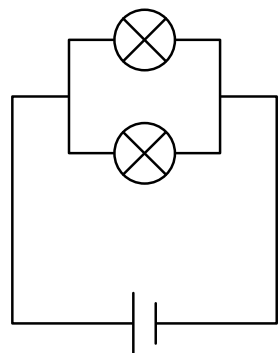


乾電池が並列のときも  
一本道で計算します。

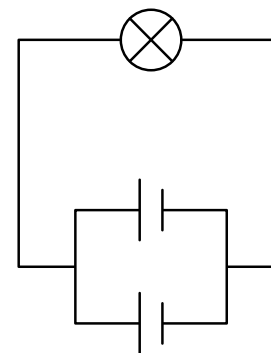


両方並列のときも、  
一本道で計算します。

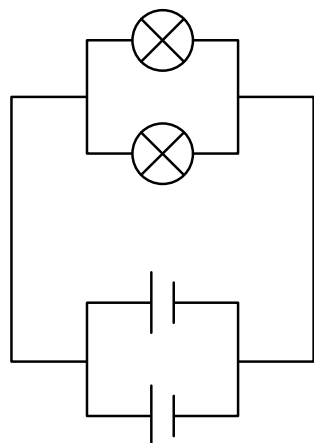
(26)



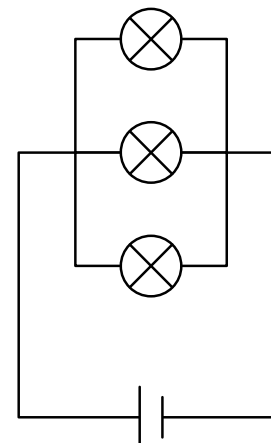
(27)



(28)

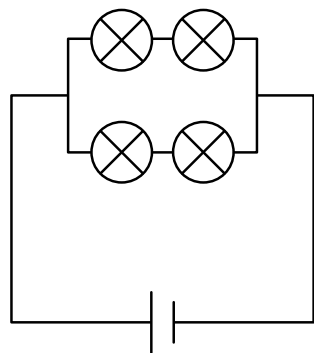


(29)

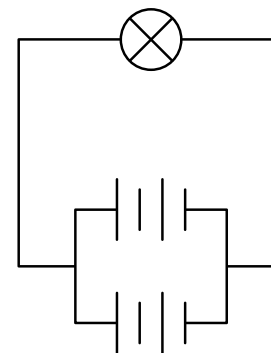




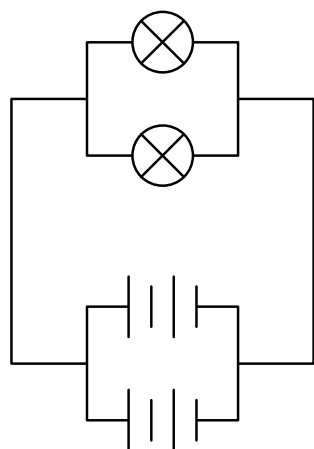
(30)



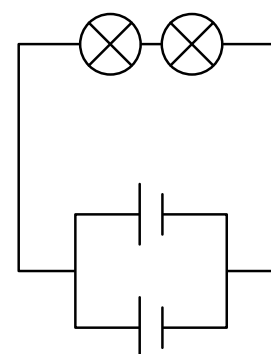
(31)



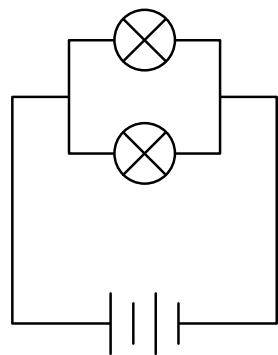
(32)



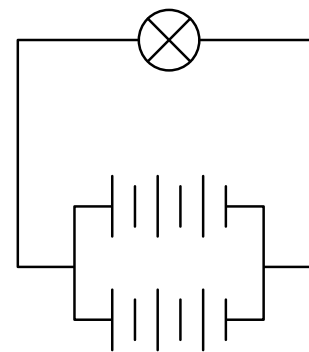
(33)



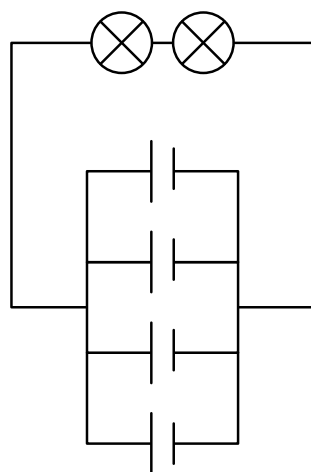
(34)



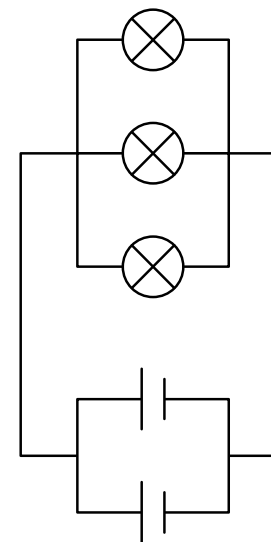
(35)



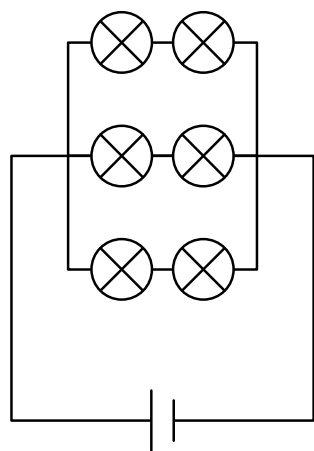
(36)



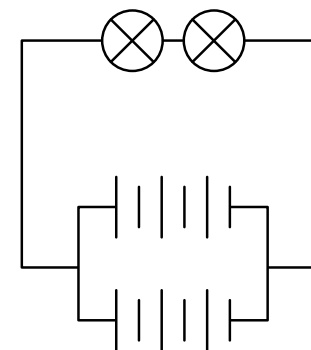
(37)



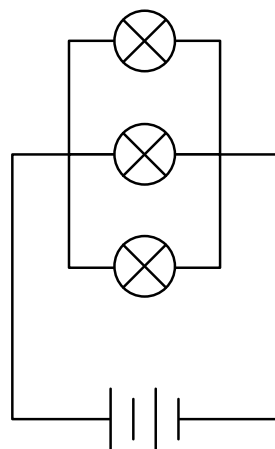
(38)



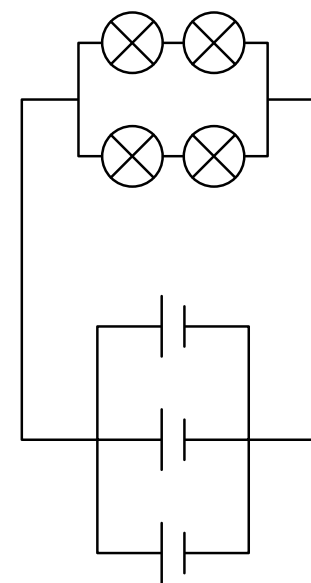
(39)



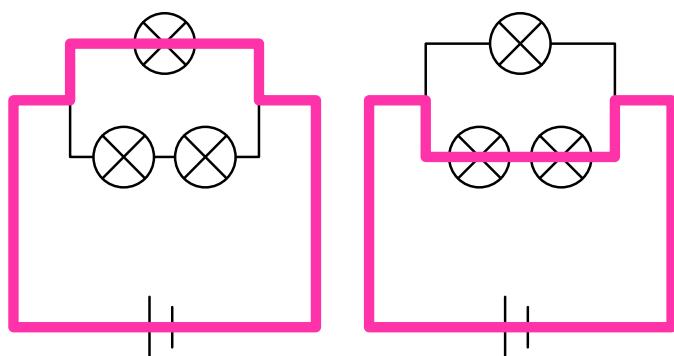
(40)



(41)

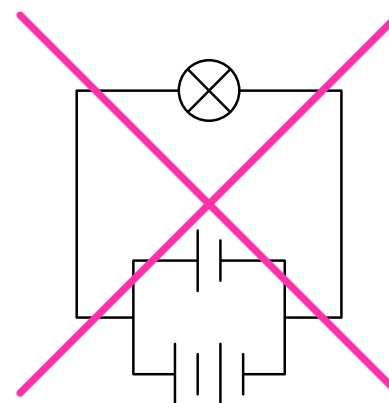


## 一本道 (いっぽんみち)



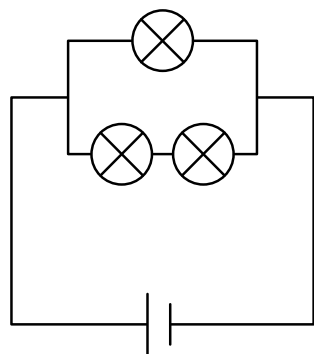
豆電球の数がちがっても、  
一本道で計算できます。

問題には出  
ません。

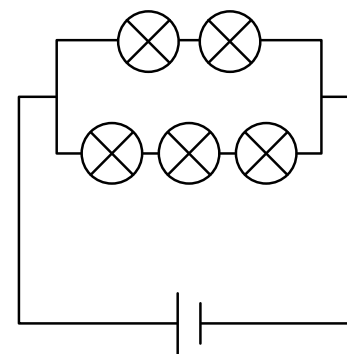


けれども、数がちがう乾電  
池は、並列につないではい  
けません。危険です！

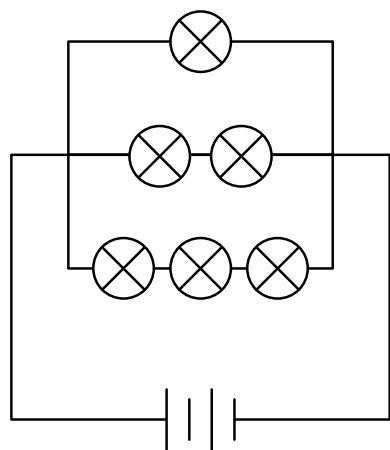
(42)



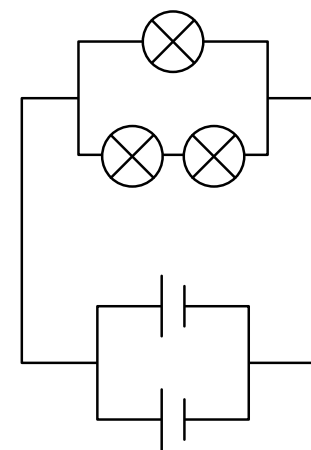
(43)



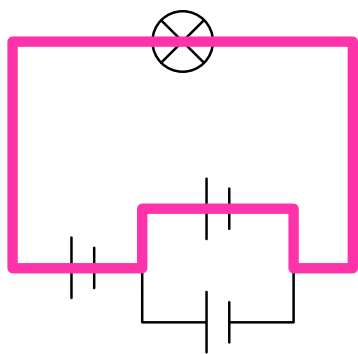
(44)



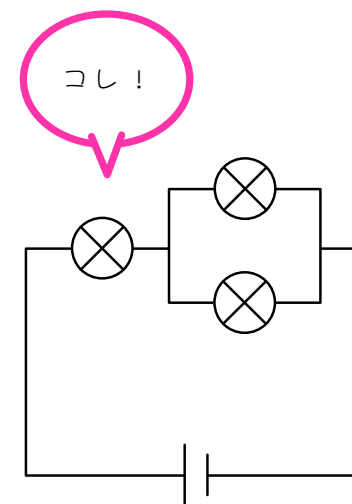
(45)



## 一本道 (いっぽんみち)

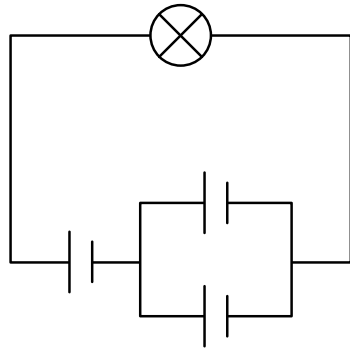


分かれ道の前に乾電池がある場合も、一本道で計算できます。

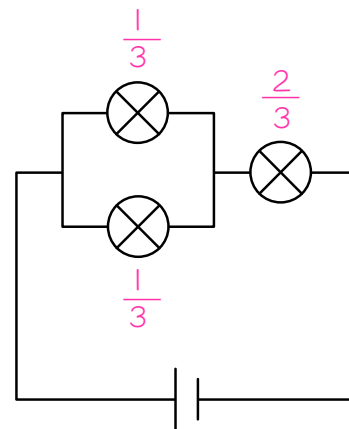
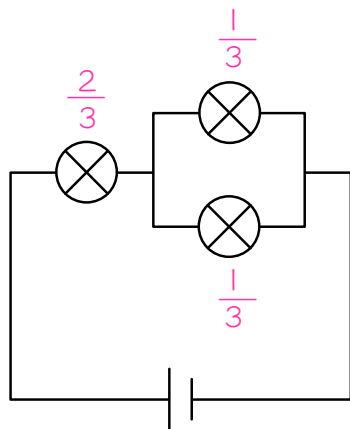
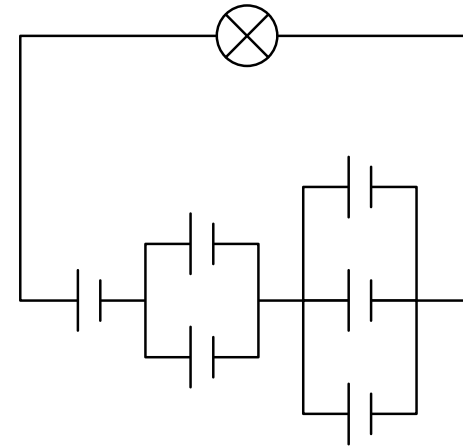


分かれ道の前に豆電球がある場合、一本道では計算できません！！

(46)

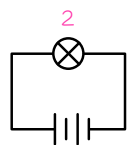


(47)

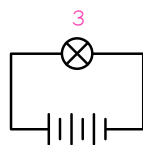


分かれ道の前や合流地点の後に豆電球がある問題は、一本道で計算してはいけません。丸暗記するか、「合成抵抗」の考え方を習ってから計算しましょう。

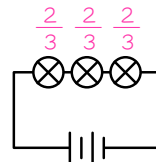
(1)



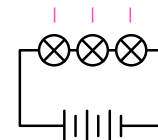
(2)



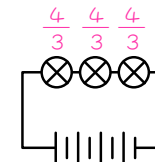
(12)



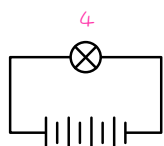
(13)



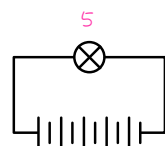
(14)



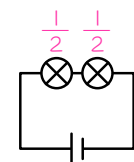
(3)



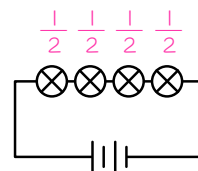
(4)



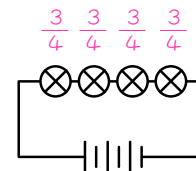
(5)



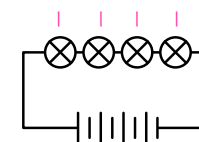
(15)



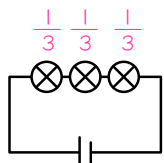
(16)



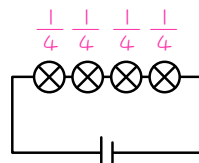
(17)



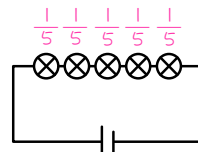
(6)



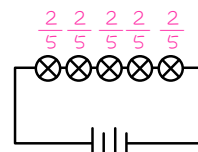
(7)



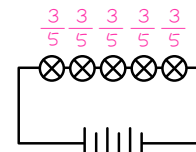
(8)



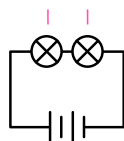
(18)



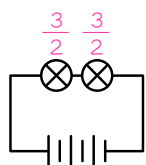
(19)



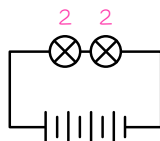
(9)



(10)

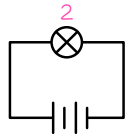


(11)

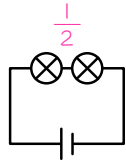




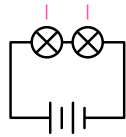
(20)



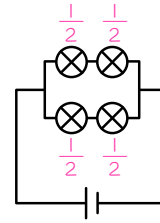
(21)



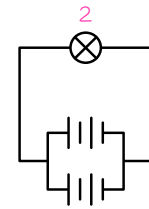
(22)



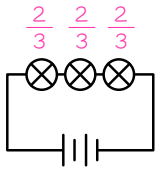
(30)



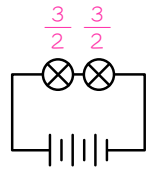
(31)



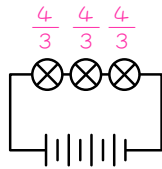
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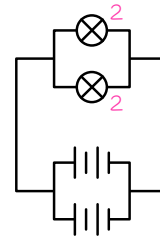
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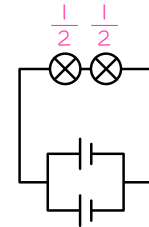
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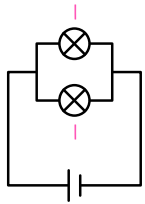
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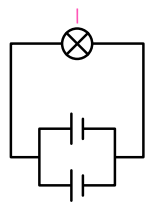
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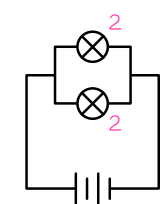
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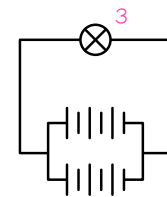
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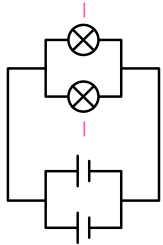
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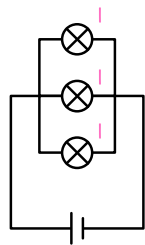
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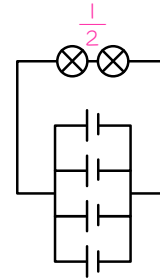
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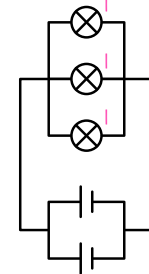
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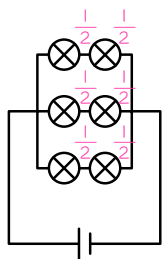
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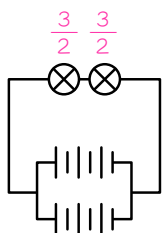
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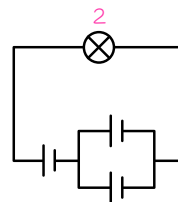
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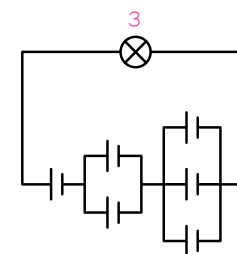
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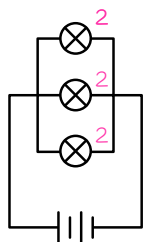
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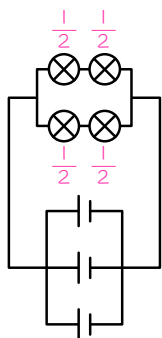
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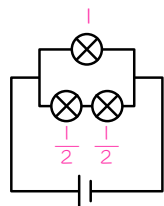
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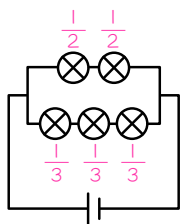
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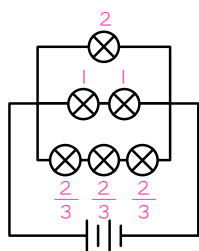
(42)



(43)



(44)



(45)

