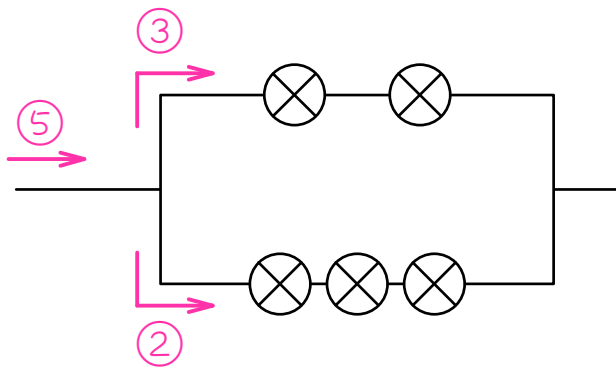
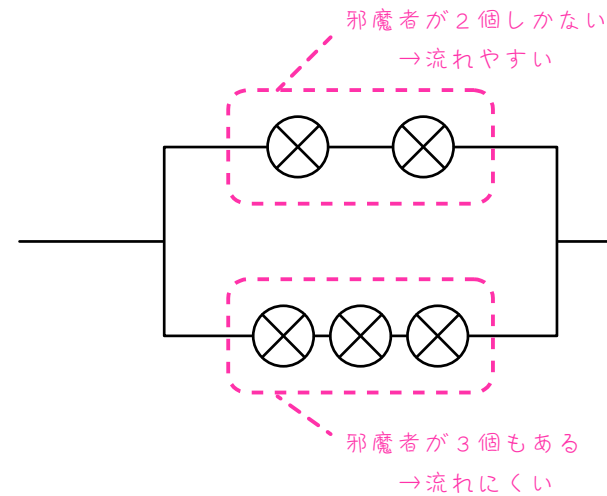


分かれ道 → 電流を逆比で比例配分



図のような回路がある場合、電流は 3 : 2 (豆電球の数の逆比) の割合で分かれます。

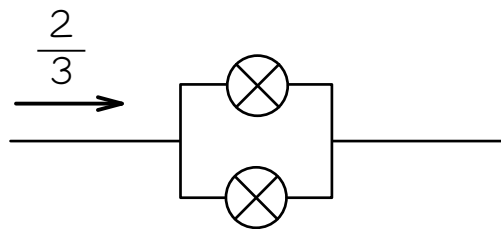


じゃまもの邪魔者 (豆電球) の数が少ないほど流れやすく、邪魔者の数が多いほど流れにくいからです。

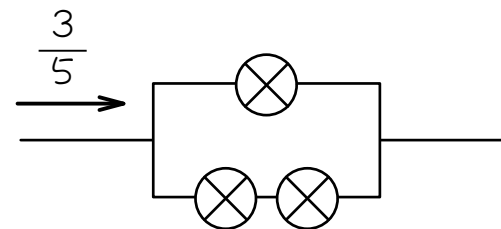
1

各豆電球に流れる電流を求めなさい。

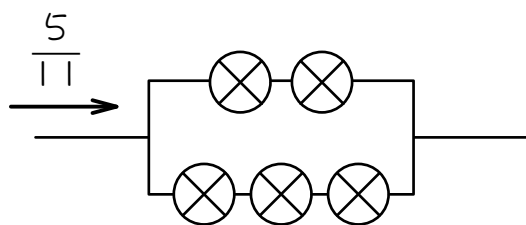
(1)



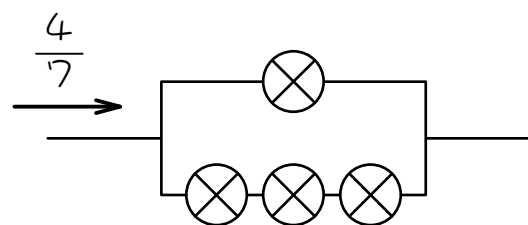
(2)



(3)

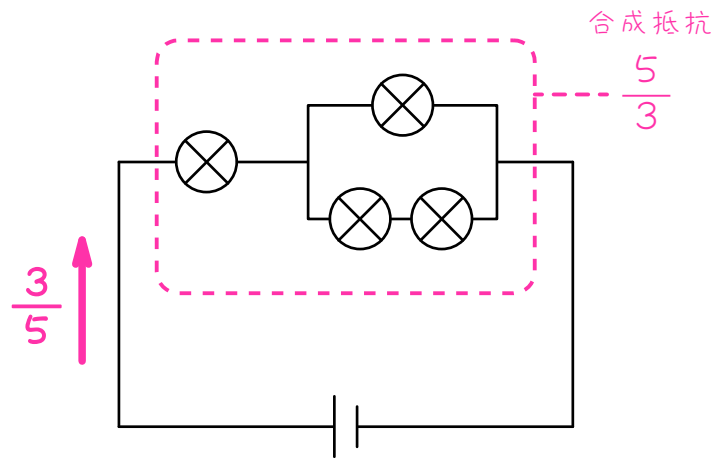


(4)



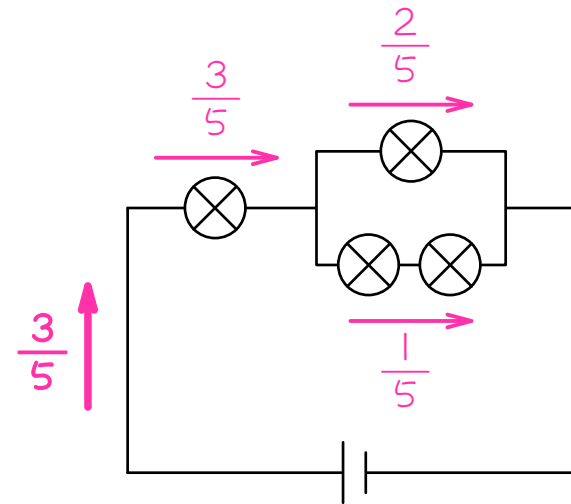
乾電池の数 ÷ 合成抵抗 = 電流

(豆電球の数と同じこと)



合成抵抗が $\frac{5}{3}$ なので、

電流は、 $1 \div \frac{5}{3} = \frac{3}{5}$



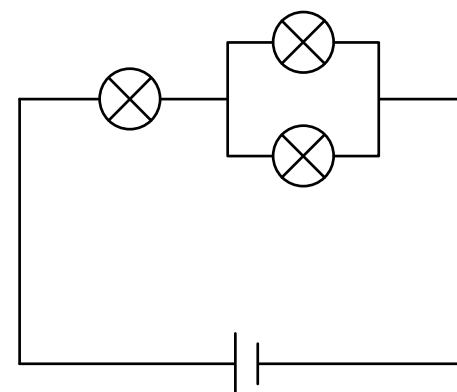
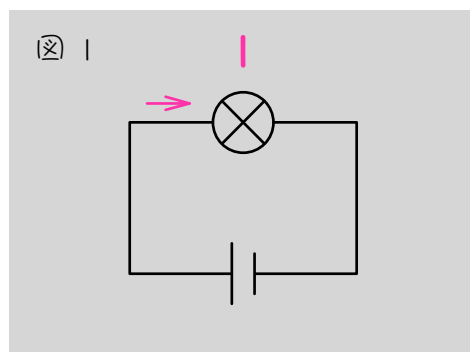
$\frac{3}{5}$ の電流を 2 : 1 に比例配分。

$$\frac{3}{5} \times \frac{2}{3} = \frac{2}{5} \quad \frac{3}{5} \times \frac{1}{3} = \frac{1}{5}$$

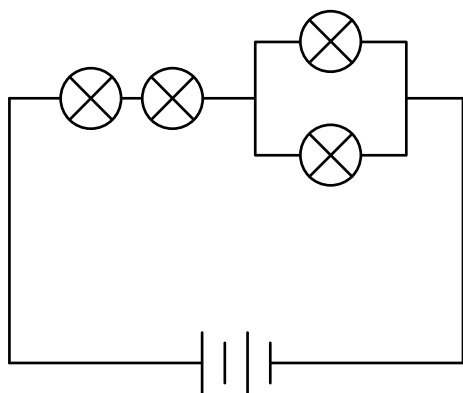
2

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、
(1)~(8)の豆電球1個、乾電池1個に流れる電流を図にかきこみなさい。

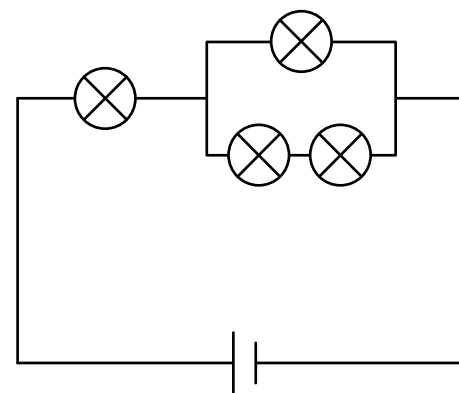
(1)



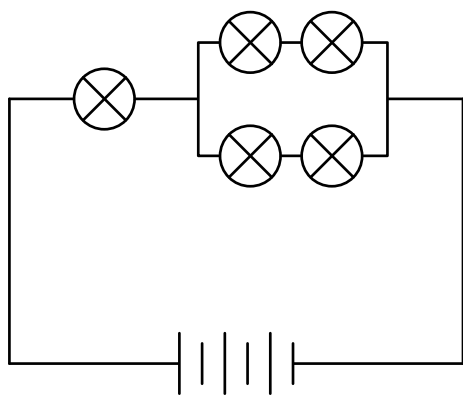
(2)



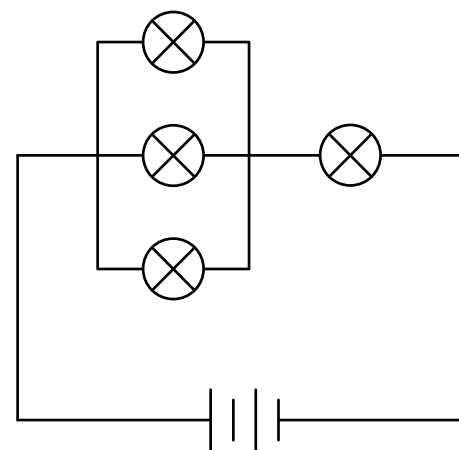
(3)



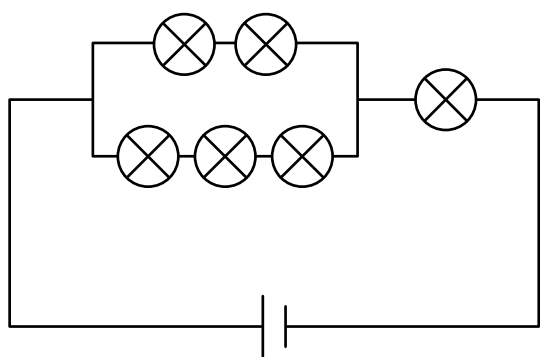
(4)



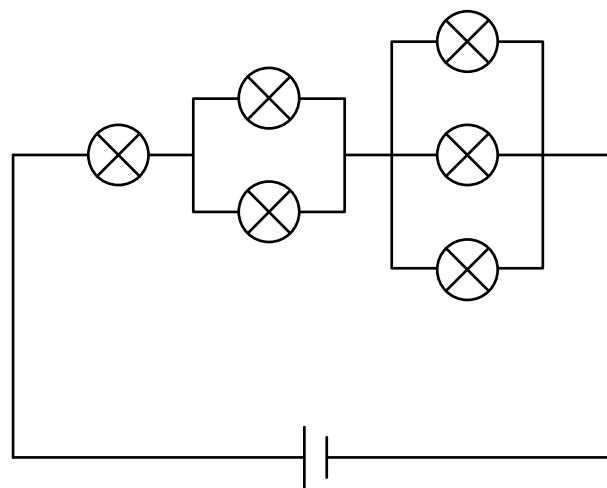
(5)



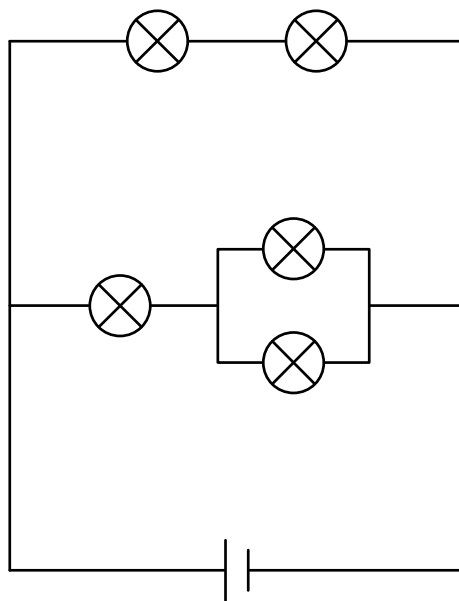
(6)



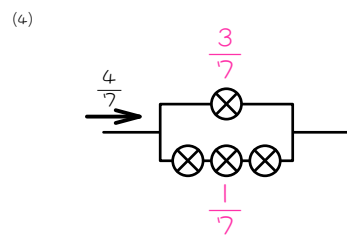
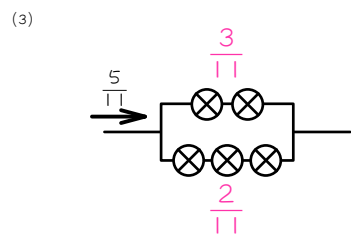
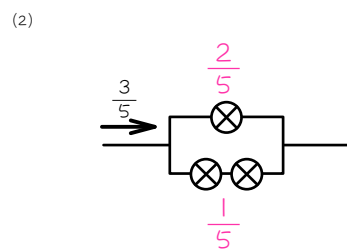
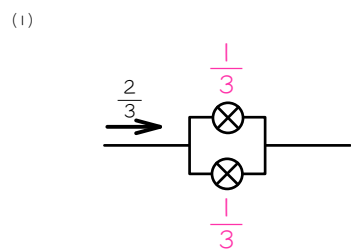
(7)



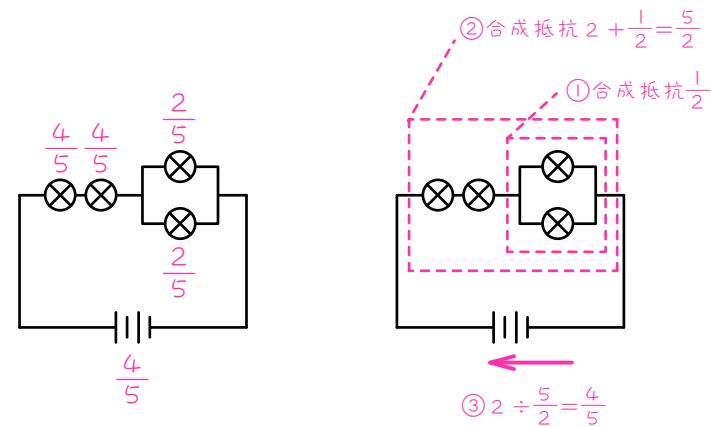
(8)☆



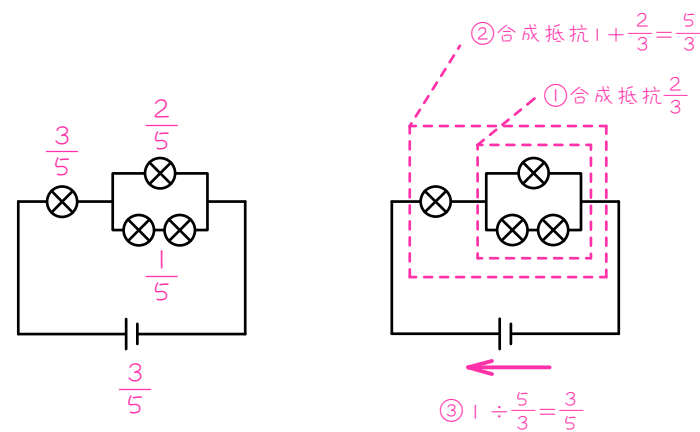
1



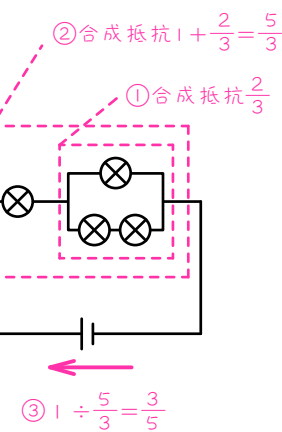
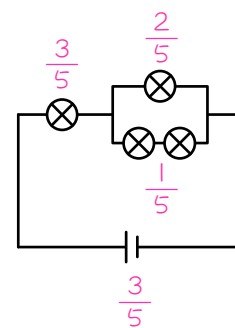
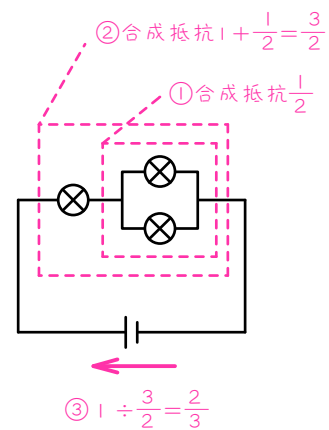
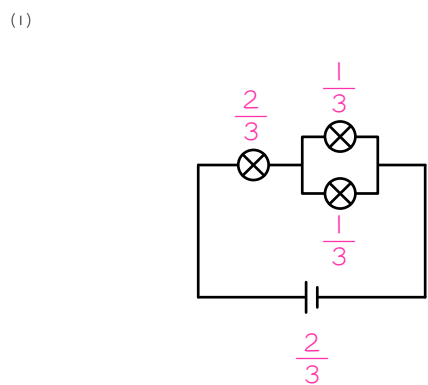
(2)



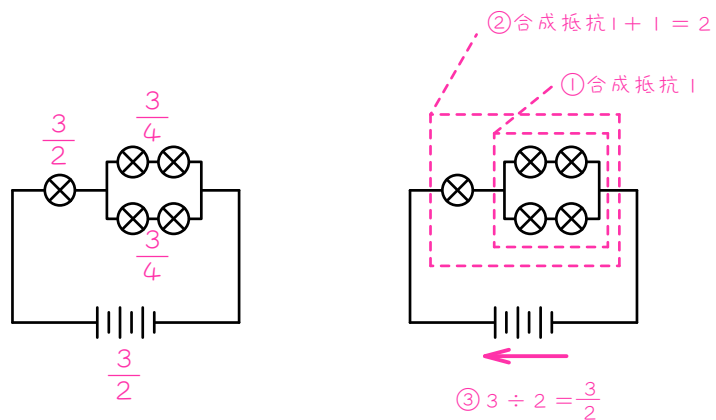
(3)



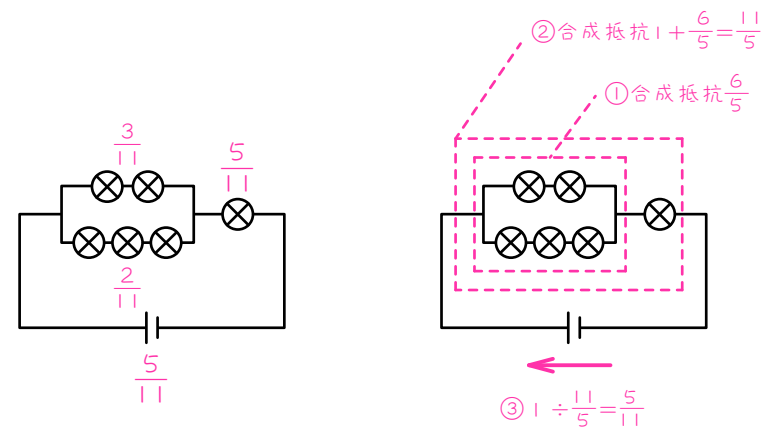
2



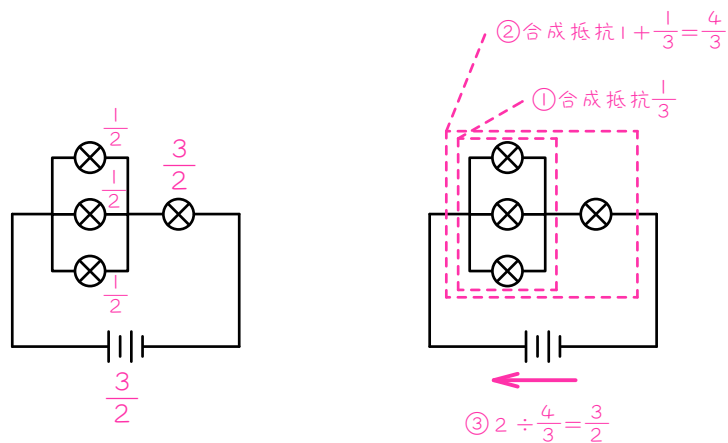
(4)



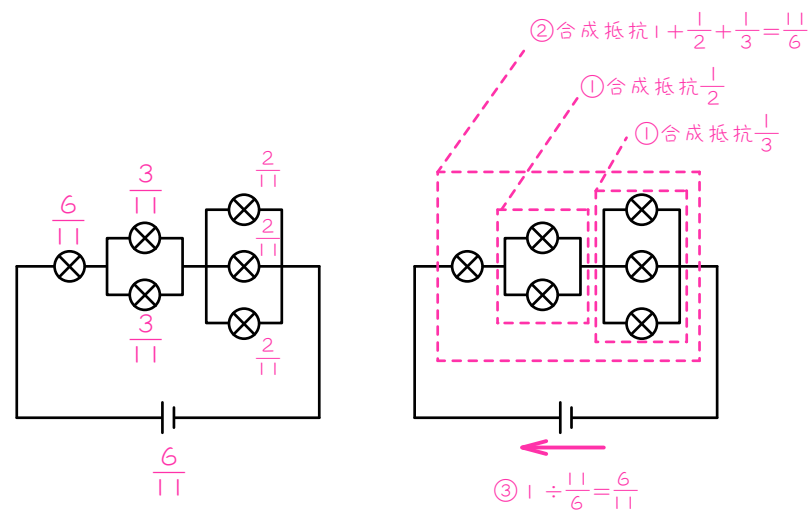
(6)



(5)



(7)



(8)☆

