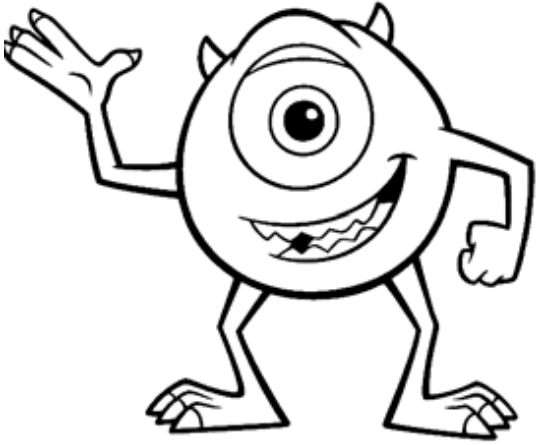


# MONSTER GENETICS

(modified from the original created by M. Poarch, <http://science-class.net>)

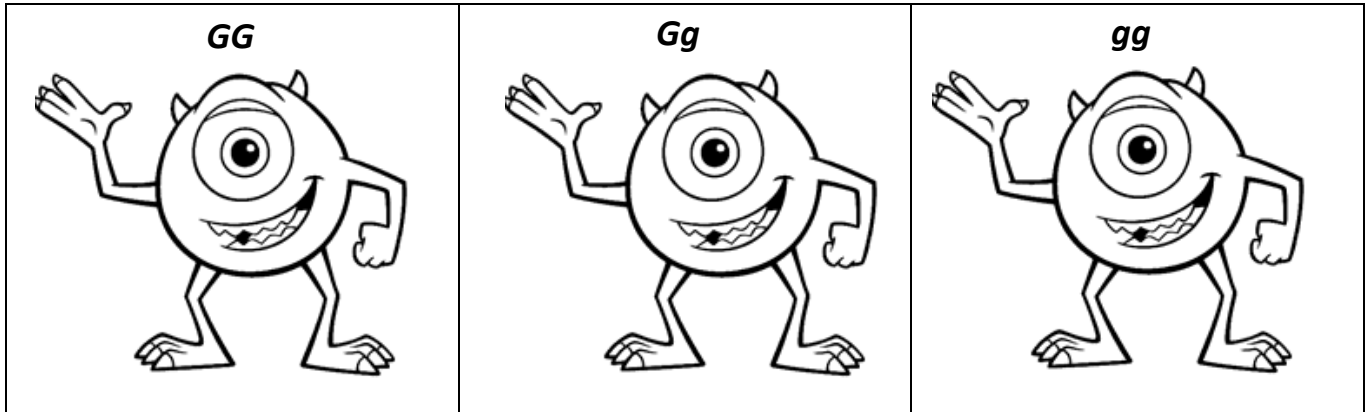
 <b>MIKE</b>	GENOTYPE	PHENOTYPE
	Gg	Dark body colour
	ee	One eye
	CC	Clawed toes
	Ff	Four fingers
	hh	Horns

1. Which of Mike's traits are caused by a heterozygous genotype?  
\_\_\_\_\_
2. Which of Mike's traits are caused by a homozygous recessive genotype?  
\_\_\_\_\_
3. Which of Mike's traits are caused by a homozygous dominant genotype?  
\_\_\_\_\_
4. If Mike mates with a female that is heterozygous for clawed toes, how many of the offspring will have clawed toes? What percent of the offspring will be heterozygous? (show cross + Punnett square)

Given this information for monsters of Mike's species:

- Dark body color [G] is dominant to light body color [g]
- Two eyes [E] are dominant to one eye [e]
- Clawed toes [C] are dominant to no claws [c]
- Four fingers [F] are dominant to five fingers [f]
- No horns [H] is dominant to horns [h]

5. Colour the monsters either dark or light based on the following genotypes:



6. Draw and colour the monsters with the following genotypes:



7. Two of Mike's species mate and  $\frac{1}{4}$  of the offspring have horns. Figure out the cross and Punnett square.