

Name: _____

Mendel's Monster Factory

Probability, just checking:

1. If I flip a coin one time, what is the probability that it will land on heads? _____
 2. If I flip the same coin again, what is the probability that it will land on heads? _____
 3. If I flip a coin 10 times, what is the probability that the eleventh time will be heads? _____
 4. If I flip a coin 4 times, and on the first three flips it landed on heads, what is the probability that the fourth will be heads again? _____
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For this activity, we are assuming that both you and your partner are heterozygous for all traits. You will flip a coin for each trait. If you flip heads, you are passing on the dominant allele to your offspring. If you flip tails, you are passing on the recessive allele. Both of you need to have all the "flips" in your individual sheets.

| Trait | Letter | Dominant Allele (Upper case letter) | Recessive Allele (Lower case letter) | Offspring 1 You - Partner (there will be two letters in this column) | Offspring 2 You - Partner (there will be two letters in this column) |
|--------------|--------|--|---|--|--|
| Face shape | S | Round | Square | | |
| Body shape | B | Round | Square | | |
| Eye color | E | Brown | Blue | | |
| Covering | C | Scales | Hair | | |
| Tail | T | No tail | Tail | | |
| Horns | H | No Horns | Horns | | |
| # of limbs | D | 4 | 6 | | |
| Mouth | M | Teeth | Beak | | |
| Antenna | A | No antenna | Has antennas | | |
| Neck Length | N | Medium | Long | | |
| Eye position | Y | Center of face | Top of head | | |
| Digits | F | Fingers | Claws | | |

Once you have finished the flips, decide between the two of you, who is drawing Offspring 1 and who is drawing Offspring 2. Remember that heterozygous offspring will show the dominant trait. Draw your monster, give it a name and turn in everything for XP.

proudly drawn by _____