Chick-fil-A

For a kid's meal, you have a choice of 2 meals (nuggets or filet strips), 2 sides (fries or fruit cup), and 4 drinks (soda, lemonade, milk, or juice). You want to eat a different kid's meal every day. How many days can you order a different meal? **16**

Coins

To decide on punishments, Mr ~~Suttle~~ *Suttle* flips a coin (Heads- ISS, Tails- OSS). He flipped a coin 3 times on the first day of school. <u>Draw a diagram.</u>
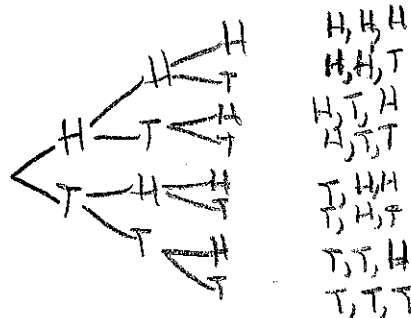
Number of Outcomes **8**

P(all ISS) **1/8**

P(all OSS) **1/8**

P(1 ISS and 2 OSS) **3/8**

P(2 ISS and 1 OSS) **3/8**

H, H, H
H, H, T
H, T, H
H, T, T
T, H, H
T, H, T
T, T, H
T, T, T

Outfits

Your outfit can be made up of 3 shirts (red, black and white) and 2 pants (jeans and khakis). <u>Draw a diagram.</u>

Number of Outcomes **6**

P(red shirt and khaki pants) **1/6**

P(jeans) **3/6 = 1/2**

P(not black shirt) **4/6 = 2/3**

Passwords

You make a 3 letter password; you can use letters more than once. How many different outcomes are there for your password? Do you think it's reasonable for teenagers to say that someone just happened to figure out their password?

$26 \cdot 26 \cdot 26 = 17,576$ No

You make a password using letters (A-Z) and numbers (0-9). How many codes can be created for a 3 space password ~~and at least two letters must be used in the password?~~
Why do some websites require you to use numbers in your passwords? to increase the possibilities

$36 \cdot 36 \cdot 36 = 46,656$