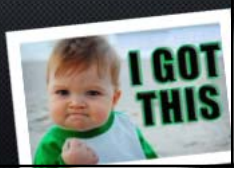
ORGANIZING RAW DATA INTO DISTRIBUTIONS

ORGANIZING YOUR NUMBERS & LOOKING FOR PATTERNS



OBJECTIVES

- GAIN CONFIDENCE IN YOUR ABILITY TO TAKE LARGE SETS OF NUMBERS AND ORGANIZE THEM IN A STATISTICALLY USEFUL WAY.
- BE ABLE TO UNDERSTAND, CONSTRUCT, AND USE A FREQUENCY (F) DISTRIBUTION.
- MAKE "X" AND "N" SECOND NATURE.

ORGANIZING YOUR COLUMNS

- **X COLUMN:** SCORES HIGHEST TO LOWEST
- **F COLUMN:** TOTAL # RESPONSES FOR A PARTICULAR SCORE; SUM = N
- **CUM F COLUMN:** BEGIN AT BOTTOM OF ROW OF DISTRIBUTION WITH NUMBER IN F COLUMN, ADD NEXT NUMBER F, SUBTOTAL, AND SO FORTH
- **% COLUMN:** F/N * (100); SUM = 100%
- **CUM % COLUMN:** CUM F/N *(100)

COOKIE!!

IN THIS ACTIVITY, YOU WILL SAMPLE DIFFERENT COOKIES AND RATE THEM.

1. **SAMPLE EACH COOKIE** THOROUGHLY (NO CHEWING WITH YOUR MOUTH OPEN) AND THEN PROVIDE A GENERAL RATING OF EACH COOKIE, ON A SCALE FROM 1 TO 10 (1=VERY BAD, 10 = VERY GOOD).
2. AFTER ALL RATINGS HAVE BEEN COLLECTED, IT WILL BE UP TO YOU TO ORGANIZE THEM. **IN PAIRS**, USE OUR CLASS DATA TO CONSTRUCT:
   a. FREQUENCY DISTRIBUTIONS
   b. PERCENT DISTRIBUTIONS
   c. CUMULATIVE FREQUENCY DISTRIBUTIONS
   d. CUMULATIVE PERCENT DISTRIBUTIONS
   e. A GRAPH DEPICTING OUR FINDINGS

THIS ACTIVITY HAS EARNED THE OFFICIAL COOKIE MONSTER SEAL OF APPROVAL

COOKIE!!

- WHICH COLUMN/DISTRIBUTION WOULD YOU USE TO DETERMINE THE TOTAL NUMBER OF SCORES?
- WHICH COLUMN/DISTRIBUTION WOULD YOU USE TO GET A SUBTOTAL OF SCORES?
- WHICH COLUMN/DISTRIBUTION WOULD YOU USE TO DETERMINE THE COOKIE THAT HAS THE GREATER RANGE OF SCORES?
- WHICH COLUMN/DISTRIBUTION WOULD YOU USE TO DETERMINE THE MOST FREQUENTLY OCCURRING SCORE?

WHICH COLUMN/DISTRIBUTION WOULD YOU USE TO DETERMINE THE BEST COOKIE? WELL…WHICH ONE IS THE BEST?