## Stats Station



1. Use the above sets to answerer the following:
a. $(A \cap B) \cup C$
b. $A \cap(B \cup C)$
c. $\quad \sim \mathrm{A}$
d. $(C \cap B)^{\prime}$
e. $\quad(\mathrm{A} \cup \mathrm{C}) \cap(\overline{(A U B)}$
2. Tiffany has an obsession with pop figures. She currently has 6 disney, 7 marvel, 2 monster high, 10 key chains, 3 hero, and even 2 coffee mugs. She plans to show here collection to her youtube channel. Find the following probabilities.
a. Tiffany with select a Disney figure and then a marvel with replacement? (percent)
b. Tiffany will select a coffee mug and a hero without replacement? (reduced fraction)
c. Tiffany will select a Key chain or a monster high character? (decimal)
d. Tiffany will select a Disney, monster high, or marvel character? (percent)
3. 20 of your friends that are girls said that they are going to attend the music festival and 40 of your friends that are boys said they are not. You asked 100 friends and 45 which were female. What is the probability that someone said yes, given they were male?
4. Use the above data to create a frequency table.
5. If you asked 350 friends how many females would not be going?

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## Answers:

1.a \{plums, grapes, apples, Pear, Peach, Banana\}
b. $\{$ grapes, apples, plums, pears $\}$
c. \{Strawberries, cherry, cranberries, peach,banana\}
d. \{Blueberry, Pear, Banana, Plum, strawberry, cherry, cranberries\}
e. \{Banana\}
2. a. $4.67 \% \quad$ b. $1 / 145$ c. $0.4 \quad$ d. $50 \%$
3. 3/11
4.

|  | Boy | girl |  |
| :--- | :--- | :--- | :--- |
| yes | $15 \%$ | $20 \%$ | $35 \%$ |
| no | $40 \%$ | $25 \%$ | $65 \%$ |
|  | $55 \%$ | $45 \%$ | $100 \%$ |

6. 88 Female friends
