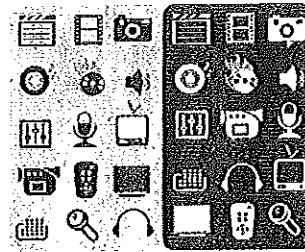
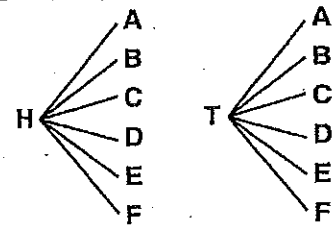


# MCAS MIXER



1 Yael flips a coin and rolls a six-sided cube labeled A, B, C, D, E, and F. The tree diagram to the right shows all possible combinations of coin flips and rolls. What is the probability of Yael flipping a heads and rolling a vowel?



- A.  $\frac{1}{3}$       B.  $\frac{1}{4}$       C.  $\frac{1}{6}$       D.  $\frac{1}{7}$

7.D.3

2 Ally, Dean, Ethan, Luka, and Sofia are on the math team. Two students will be chosen at random for a team. The organized list below shows all possible teams.

AD, AE, AL, AS, DE,  
DL, DS, EL, ES, LS

What is the probability Luka is on the team?

- A.  $\frac{1}{10}$       C.  $\frac{4}{15}$   
B.  $\frac{1}{5}$       D.  $\frac{2}{5}$

7.D.3

3 A carnival game has a spinning wheel with 100 equal sized pieces numbered from 1 to 100. To win, you have to spin a number that is a multiple of both 3 and 8. What is the theoretical probability of winning?

- A.  $\frac{11}{100}$   
B.  $\frac{2}{25}$   
C.  $\frac{1}{25}$   
D.  $\frac{3}{100}$

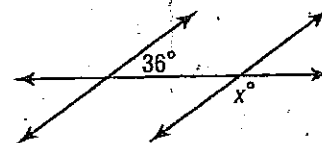
7.D.3

4 Three angles of a quadrilateral have a measure of  $90^\circ$ . What is the measure of the fourth angle?

- A.  $90^\circ$   
B.  $180^\circ$   
C.  $270^\circ$   
D.  $360^\circ$

7.G.1

5 The figure below shows a line intersecting two parallel lines.



Based upon the given angle measure, what is the value of  $x$ ?

- A. 154      C. 54  
B. 144      D. 36

7.G.3