

Name: *key*

UNIT 11 DAY 11

HOMEWORK - AND VS. OR



A bag has 13 trucks, 14 trains, and 18 action figures in it. *45 total*

1. What is the probability of selecting a train OR a truck?

$$\frac{14}{45} + \frac{13}{45} = \frac{27}{45} = \frac{3}{5}$$

2. What is the probability of selecting an action figure?

$$\frac{18}{45} = \frac{2}{5}$$

3. What is the probability of selecting a truck AND THEN a train (with replacement)?

$$\frac{13}{45} \cdot \frac{14}{45} = \frac{182}{2025}$$

4. What is the probability of selecting a truck AND THEN a train (without replacement)?

$$\frac{13}{45} \cdot \frac{14}{44} = \frac{182}{1980} = \frac{91}{990}$$

5. What is the probability of selecting an action figure AND THEN a train AND THEN another action figure (with replacement)?

$$\frac{18}{45} \cdot \frac{14}{45} \cdot \frac{18}{45} = \frac{4536}{91125} = \frac{56}{1125}$$

6. What is the probability of selecting an action figure AND THEN a train AND THEN another action figure (without replacement)?

$$\frac{18}{45} \cdot \frac{14}{44} \cdot \frac{17}{43} = \frac{4284}{85140} = \frac{119}{2365}$$