

# Compound Events

## Probability Word Problems - Independent Events

Name: \_\_\_\_\_ Date: \_\_\_\_\_

- (1) Claire wrote a computer program that generates two random numbers between one and eight. When she runs it, what is the probability that both values will be two?
- (2) You accidentally dropped a coin from the top of 11 stairs. What is the probability that it will land on the eighth step, heads up?
- (3) The computer repairman is given six computers to fix. He knows that among them are 3 bad video cards and 5 failed hard drives. What is the probability that the first computer he tries has a failed hard drive but a working video card?
- (4) The game show contestant spins a spinner with the letters A through H on it, then either an easy or hard question is picked randomly for her. What is the probability that the spinner will stop on the letter B and she is given a hard question?

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## ANSWER KEY

- (1) Claire wrote a computer program that generates two random numbers between one and eight. When she runs it, what is the probability that both values will be two?

$$\frac{1}{8} \times \frac{1}{8} = \frac{1}{64}$$

- (2) You accidentally dropped a coin from the top of 11 stairs. What is the probability that it will land on the eighth step, heads up?

$$\frac{1}{11} \times \frac{1}{2} = \frac{1}{22}$$

- (3) The computer repairman is given six computers to fix. He knows that among them are 3 bad video cards and 5 failed hard drives. What is the probability that the first computer he tries has a failed hard drive but a working video card?

$$\frac{3}{6} \times \frac{5}{6} = \frac{15}{36} = \frac{5}{12}$$

- (4) The game show contestant spins a spinner with the letters A through H on it, then either an easy or hard question is picked randomly for her. What is the probability that the spinner will stop on the letter B and she is given a hard question?

$$\frac{1}{8} \times \frac{1}{2} = \frac{1}{16}$$