

Student Name: _____ Score: _____

Independent and Dependent

10 cards are numbered from 1 through 10. The cards are well shuffled and are drawn at random.

Problems

Work Space

<p>Three cards are drawn without replacement. The first and the second cards show 4 and 6 respectively. Find the probability of selecting an even number in a third draw.</p> <p>Answer: _____</p>	
<p>If the conditions are the same as in question 1, find the probability of selecting an odd number in the third draw.</p> <p>Answer: _____</p>	
<p>If two cards are drawn with replacement, find the probability of choosing a prime number in both the first and the second draw.</p> <p>Answer: _____</p>	
<p>If two cards are drawn without replacement, find the probability of drawing 4 or 5 in the first draw and any even prime in the second draw.</p> <p>Answer: _____</p>	

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Answers

Three cards are drawn without replacement. The first and the second cards show 4 and 6 respectively. Find the probability of selecting an even number in a third draw.

Answer: $\frac{3}{8}$

If the conditions are the same as in question 1, find the probability of selecting an odd number in the third draw.

Answer: $\frac{5}{8}$

If two cards are drawn with replacement, find the probability of choosing a prime number in both the first and the second draw.

Answer: $\frac{4}{10} * \frac{3}{9} = \frac{2}{15}$

If two cards are drawn without replacement, find the probability of drawing 4 or 5 in the first draw and any even prime in the second draw.

Answer: $\frac{2}{10} * \frac{1}{9} = \frac{1}{45}$