

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

### Independent and Dependent

Two cards are drawn from single deck of 52 cards one after the other.

Problems

Work Space

|  |  |
|--|--|
| Find the probability of selecting a king from the first card.<br><br>Answer: _____   |  |
| If the first card is king and the card is not replaced, what is the probability of selecting a king from the second card?<br><br>Answer: _____       |  |
| Find the probability of selecting a king from the first card and a queen from the second card without replacing the first card.<br><br>Answer: _____ |  |
| Find the probability of selecting a Jack from the first card and queen from the second card with replacement.<br><br>Answer: _____                   |  |
| Find the probability of selecting 6 or 7 in the first draw and 8 or 9 in the second draw without replacement.<br><br>Answer: _____                   |  |

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Answer key

Independent and Dependent

Find the probability of selecting a king from the first card.

Answer:  $\frac{1}{13}$

If the first card is king and the card is not replaced, what is the probability of selecting a king from the second card?

Answer:  $\frac{1}{17}$

Find the probability of selecting a king from the first card and a queen from the second card without replacing the first card.

Answer:  $\frac{4}{52} * \frac{4}{51} = \frac{4}{663}$

Find the probability of selecting a Jack from the first card and queen from the second card with replacement.

Answer:  $\frac{4}{52} * \frac{4}{52} = \frac{1}{169}$

Find the probability of selecting 6 or 7 in the first draw and 8 or 9 in the second draw without replacement.

Answer:  $\frac{8}{52} * \frac{8}{52} = \frac{4}{169}$