

Name: _____

Independent Events

- 1) The probability that A hits a target is $\frac{1}{4}$ and that B hits a target is $\frac{1}{3}$. They each fire once at the target. Find the probability that:
 - 1) They both hit the target
 - 2) The target is hit at least once
 - 3) The target is hit exactly once
- 2) Five cards—the ten, jack, queen, king and ace of diamonds, are well-shuffled with their face downwards. One card is then picked up at random.
 - 1) What is the probability that the card is the queen?
 - 2) If the queen is drawn and put aside, what is the probability that the second card picked up is:
 - i. an ace?
 - ii. a queen?
- 3)
 - 1) What is the probability of tossing a coin three times and getting two heads and a tail?
 - 2) What is the probability of tossing a coin three times and getting a head, then a tail, then a head?
- 4) A card is drawn from a deck of ten cards numbered 1 through 10. The card is replaced in the deck and another card is drawn. Find the probability of each outcome.
 - 1) $P(9 \text{ and then a } 7)$
 - 2) $P(6 \text{ and a } 4)$
 - 3) $P(\text{an even and then a } 2)$
 - 4) $P(\text{two numbers less than } 6)$
 - 5) $P(8 \text{ and then an odd number})$
 - 6) $P(\text{two odd numbers})$