Name _____

Finite Mathematics (Math 10120), Fall 2020
Quiz 3, Friday, September 18, 2020

Suppose you randomly select a card from a standard 52 card deck. Consider the events

$E =$ the card is an A, 2, or 3,
$F =$ the card is not a club.

1. Compute $P(E \cup F)$.

$$P(E \cup F) = P(E) + P(F) - P(E \cap F)$$
$$= \frac{12}{52} + \frac{39}{52} - \frac{9}{52} = \frac{42}{52}$$

Answer to #1:
$42/52 = 21/26$

2. Compute $P(E \mid F)$.

$$P(E|F) = \frac{P(E \cap F)}{P(F)} = \frac{9/52}{39/52} = \frac{9}{39}$$

Answer to #2:
$9/39 = 3/13$