1.

$$P(S \text{ and } P) = \frac{17}{20}$$

$$P(S) = \frac{15}{16}$$

$$P(P|S) = \frac{P(S \text{ and } P)}{P(S)} =$$

2.

$$P(S) = \frac{3}{16} \qquad P(C \text{ and }$$

$$P(C|S) = \frac{4/15}{3/16} = .8$$

3. A penny and a nickel are tossed. Find the probability that the penny shows heads, given that the nickel shows heads.

$$\frac{1}{2}$$

4.

$$\frac{1}{2}$$

the two eve

independe

5.

$$P(E|S) = \frac{P(E \text{ and } S)}{P(S)}$$

$$= \frac{2/8}{4/8} =$$

6.

six-sided

$$P(<5 \mid E) = \frac{P(<5 \text{ and } E)}{P(E)} =$$

7.

$$\frac{4}{8} = .5$$

Primes: 2, 3, 5, 7

$$\cdot P(\text{prime and odd}) = 3/8$$

$$P(\text{prime} \mid \text{odd}) = \frac{3/8}{4/8} =$$

8.

$$= \frac{P(\text{blue and not } \text{u}}{P(\text{not whu}}$$

$$= \frac{3/12}{3/12}$$

$$\frac{P(\text{not red and not}}{P(\text{not whi})}$$