Independent and Dependent Events

Name_____

Date_____

Determine if events *A* and *B* are independent.

1) $P(A) = \frac{7}{20}$ $P(B) = \frac{1}{4}$ $P(A \text{ and } B) = \frac{7}{80}$

2) $P(A) = \frac{11}{20}$ $P(B) = \frac{1}{2}$ $P(A \text{ and } B) = \frac{11}{50}$

3) $P(A) = \frac{7}{10}$ $P(B) = \frac{13}{20}$ $P(A \text{ and } B) = \frac{91}{200}$

4) $P(A) = \frac{11}{20}$ $P(B) = \frac{7}{20}$ $P(A \text{ and } B) = \frac{77}{400}$

5) $P(A) = \frac{13}{20}$ $P(B) = \frac{11}{20}$ $P(A \text{ and } B) = \frac{143}{400}$

6) $P(A) = \frac{9}{20}$ $P(B) = \frac{3}{4}$ $P(A \text{ and } B) = \frac{27}{80}$

7) $P(A) = \frac{2}{5}$ $P(B) = \frac{7}{10}$ $P(A \text{ and } B) = \frac{7}{25}$

8) $P(A) = \frac{11}{20}$ $P(B) = \frac{1}{4}$ $P(A \text{ and } B) = \frac{11}{80}$

Events *A* and *B* are independent. Find the missing probability.

9) $P(A) = \frac{9}{20}$ $P(A \text{ and } B) = \frac{27}{200}$ $P(B) = ?$

10) $P(B) = \frac{7}{20}$ $P(A \text{ and } B) = \frac{49}{200}$ $P(A) = ?$

11) $P(A) = \frac{3}{4}$ $P(A \text{ and } B) = \frac{27}{80}$ $P(B) = ?$

12) $P(A) = \frac{1}{5}$ $P(A \text{ and } B) = \frac{3}{50}$ $P(B) = ?$

13) $P(A) = \frac{7}{20}$ $P(B) = \frac{1}{4}$ $P(A \text{ and } B) = ?$

14) $P(B) = \frac{3}{10}$ $P(A \text{ and } B) = \frac{39}{200}$ $P(A) = ?$

15) $P(A) = \frac{1}{2}$ $P(B) = \frac{7}{10}$ $P(A \text{ and } B) = ?$

16) $P(A) = \frac{13}{20}$ $P(B) = \frac{13}{20}$ $P(A \text{ and } B) = ?$

Find the missing probability.

17) $P(A \text{ and } B) = \frac{91}{200}$ $P(B|A) = \frac{7}{10}$ $P(A) = ?$

18) $P(B) = \frac{1}{5}$ $P(A|B) = \frac{1}{20}$ $P(A \text{ and } B) = ?$

19) $P(B) = \frac{1}{2}$ $P(A|B) = \frac{117}{200}$ $P(A \text{ and } B) = ?$

20) $P(B) = \frac{7}{20}$ $P(A \text{ and } B) = \frac{7}{40}$ $P(A|B) = ?$

21) $P(A \text{ and } B) = \frac{13}{200}$ $P(B|A) = \frac{1}{10}$ $P(A) = ?$

22) $P(A \text{ and } B) = \frac{12}{25}$ $P(A|B) = \frac{16}{25}$ $P(B) = ?$

23) $P(B) = \frac{3}{10}$ $P(A|B) = \frac{3}{5}$ $P(A \text{ and } B) = ?$

24) $P(A) = \frac{7}{20}$ $P(A \text{ and } B) = \frac{21}{100}$ $P(B|A) = ?$

Answers to Independent and Dependent Events

1) Independent
2) Dependent
3) Independent
4) Independent
5) Independent
6) Independent
7) Independent
8) Independent
9) $\frac{3}{10}$
10) $\frac{7}{10}$
11) $\frac{9}{20}$
12) $\frac{3}{10}$
13) $\frac{7}{80}$
14) $\frac{13}{20}$
15) $\frac{7}{20}$
16) $\frac{169}{400}$
17) $\frac{13}{20}$
18) $\frac{1}{100}$
19) $\frac{117}{400}$
20) $\frac{1}{2}$
21) $\frac{13}{20}$
22) $\frac{3}{4}$
23) $\frac{9}{50}$
24) $\frac{3}{5}$