

Compound Events

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Name _____

Date _____

Determine if events A and B are mutually exclusive.

1) $P(A) = \frac{2}{5}$ $P(B) = \frac{11}{20}$ $P(A \text{ or } B) = \frac{73}{100}$

2) $P(A) = \frac{3}{5}$ $P(B) = \frac{3}{10}$ $P(A \text{ or } B) = \frac{9}{10}$

3) $P(A) = \frac{3}{4}$ $P(B) = \frac{9}{20}$ $P(A \text{ or } B) = \frac{69}{80}$

4) $P(A) = \frac{1}{5}$ $P(B) = \frac{1}{5}$ $P(A \text{ or } B) = \frac{2}{5}$

5) $P(A) = \frac{3}{10}$ $P(B) = \frac{9}{20}$ $P(A \text{ or } B) = \frac{57}{100}$

6) $P(A) = \frac{3}{10}$ $P(B) = \frac{3}{10}$ $P(A \text{ or } B) = \frac{51}{100}$

Events A and B are mutually exclusive. Find the missing probability.

7) $P(A) = \frac{13}{20}$ $P(A \text{ or } B) = \frac{9}{10}$ $P(B) = ?$

8) $P(B) = \frac{9}{20}$ $P(A \text{ or } B) = \frac{17}{20}$ $P(A) = ?$

9) $P(A) = \frac{1}{4}$ $P(A \text{ or } B) = \frac{7}{10}$ $P(B) = ?$

10) $P(A) = \frac{1}{5}$ $P(B) = \frac{13}{20}$ $P(A \text{ or } B) = ?$

11) $P(B) = \frac{1}{4}$ $P(A \text{ or } B) = \frac{9}{20}$ $P(A) = ?$

12) $P(A) = \frac{13}{20}$ $P(A \text{ or } B) = \frac{17}{20}$ $P(B) = ?$

Find the missing probability.

$$13) P(A) = \frac{2}{5} \quad P(B) = \frac{3}{10} \quad P(A \text{ and } B) = \frac{3}{25} \quad P(A \text{ or } B) = ?$$

$$14) P(A) = \frac{11}{20} \quad P(B) = \frac{1}{2} \quad P(A \text{ and } B) = \frac{11}{40} \quad P(A \text{ or } B) = ?$$

$$15) P(A) = \frac{9}{20} \quad P(B) = \frac{7}{10} \quad P(A \text{ or } B) = \frac{167}{200} \quad P(A \text{ and } B) = ?$$

$$16) P(A) = \frac{1}{2} \quad P(A \text{ or } B) = \frac{33}{40} \quad P(A \text{ and } B) = \frac{7}{40} \quad P(B) = ?$$

$$17) P(A) = \frac{3}{4} \quad P(A \text{ or } B) = \frac{9}{10} \quad P(A \text{ and } B) = \frac{3}{20} \quad P(B) = ?$$

$$18) P(A) = \frac{7}{10} \quad P(B) = \frac{13}{20} \quad P(A \text{ and } B) = \frac{91}{200} \quad P(A \text{ or } B) = ?$$

Answers to Compound Events

1) Not mutually exclusive

2) Mutually exclusive

3) Not mutually exclusive

4) Mutually exclusive

5) Not mutually exclusive

6) Not mutually exclusive

7) $\frac{1}{4}$

8) $\frac{2}{5}$

9) $\frac{9}{20}$

10) $\frac{17}{20}$

11) $\frac{1}{5}$

12) $\frac{1}{5}$

13) $\frac{29}{50}$

14) $\frac{31}{40}$

15) $\frac{63}{200}$

16) $\frac{1}{2}$

17) $\frac{3}{10}$

18) $\frac{179}{200}$

