Conditional Probability Worksheet 3 - Answers

Use the following probabilities to answer questions 1-5: P(A) = 0.25, P(B) = 0.15, P(C) = 0.30, P(D) = 0.2, P(E) = 0.40.

1. If P(A and E) = 0.10, are events A and E independent?

Yes.

2. If P(A and B) = 0.00, are events A and B independent?

No.

3. If P(A and C) = 0.15, are events A and C independent?

No.

4. If P(B and D) = 0.03, are events B and D independent?

Yes.

5. If P(C and E) = 0.20, are events C and E independent?

No.

For questions 6-10, determine the P(A and B) that would show that events A and B are independent events.

6. P(A) = 0.50, P(B) = 0.50.

P(A and B) = 0.25.

7. P(A) = 0.25, P(B) = 0.15.

P(A and B) = 0.0375.

8. P(A) = 0.17, P(B) = 0.3.

P(A and B) = 0.051.

9. P(A) = 1.00, P(B) = 0.50.

P(A and B) = 0.50.

10. P(A) = 0.9, P(B) = 0.2.

P(A and B) = 0.18.

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