Lesson 7.4 Practice: Normal Random Variables and Their Sums

School Launch · Statistics · Unit 7: Random Variables · Worksheet A

Calculator / tables

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Each of 4 independent packages weighs $N(10, 4)$ lb. Find $P(\text{total} > 42)$ (four decimals). EASY

2. Each of 6 independent packages weighs $N(17, 1)$ lb. Find $P(\text{total} > 104)$ (four decimals). EASY

3. Each of 5 independent packages weighs $N(8, 1)$ lb. Find $P(\text{total} > 42)$ (four decimals). EASY

4. Each of 5 independent packages weighs $N(13, 2)$ lb. Find $P(\text{total} > 71)$ (four decimals). MEDIUM

5. Each of 4 independent packages weighs $N(11, 3)$ lb. Find $P(\text{total} > 50)$ (four decimals). MEDIUM

6. Each of 5 independent packages weighs $N(18, 3)$ lb. Find $P(\text{total} > 95)$ (four decimals). MEDIUM

7. Each of 3 independent packages weighs $N(19, 1)$ lb. Find $P(\text{total} > 55)$ (four decimals). MEDIUM

8. Each of 3 independent packages weighs $N(8, 3)$ lb. Find $P(\text{total} > 26)$ (four decimals). HARD

9. Each of 6 independent packages weighs $N(9, 4)$ lb. Find $P(\text{total} > 54)$ (four decimals). HARD

10. Each of 4 independent packages weighs $N(19, 1)$ lb. Find $P(\text{total} > 79)$ (four decimals). HARD