

Chapter 9 Selected Answers to Mastery Items

2. In swimming, different assessments could be made about progress throughout the course (formative) to help you progress to another level.
In gymnastics, you might have to successfully complete one type of movement before moving to a more difficult maneuver.
3. Things to consider include the frequency of assessment, availability of testing instruments, facilities and equipment required, uses of assessment results, and how to keep records of each student's results. This is true in the cognitive, psychomotor, and affective domains.
4. One could argue either possibility. The first student improved by 3 seconds but the second made a more difficult improvement. There is no correct answer to this question.
5. Considerations include your definition of physical fitness, the current fitness level of your class, and the available time, facilities, and equipment. Objectives should be based on known values for ninth-grade students (e.g., 1-mile run times, body composition values, and number of sit-ups). Select knowledge and performance tests based on validity, reliability, and objectivity data available.
6. Considerations include your objectives in the psychomotor, cognitive, and affective domains. Objectives should be stated in behavioral terms (e.g., specific ranges in terms of number of correct answers for grade of A, B, C, and D on a soccer knowledge test, number of points necessary for each grade on the soccer skills test selected, performance in alternative assessment).
7. $(9 \times 1) + (5 \times 4) + (10 \times 5) = 9 + 20 + 50 = 79$; $79/10 = 7.9$, or B
8. There are to be five grades, so we will be dealing with five areas under the normal curve. (Note that this problem does not specify five equal standard deviation widths.) If 40% of the grades are to be C, one half of the C grades (20%) would lie on each side of the mean. Using table 3-3, you can determine that this would be .52 standard deviation units from the mean. Since 1 standard deviation unit equals 6.6 points, .52 units would equal 3.43 points. This value added and subtracted from the mean (38.5) establishes the cutoff points for B and better grades (about 42 and above) and for D and worse grades (about 35 and below). Of course, C grades will fall between 36 and 41, inclusive. To determine the cutoff point between A's and B's (and thus between D's and F's), use table 3-3 again to determine that 1.28 standard deviation units encompass 40% of the curve—the 20% C's and 20% B's above (and below) the mean will result in 10% of the grades falling in these categories; $1.28 \times 6.6 = 8.45$. This value added (and subtracted) from the mean gives the final cutoff point, 47 (and 30). The final conversion chart would be as follows:
- | | |
|---------------|---------------|
| A's \geq 47 | D's 30-35 |
| B's 42-46 | F's \leq 29 |

C's 36-41

9. Using table 3-3 results in approximately 9% A's (and F's), 26% B's (and D's), and 31% C's. Given $n = 65$, these percentages result in 6 A's, 17 B's, 20 C's, 17 D's, and 5 F's. (Rounding causes the number of A's and F's to differ even though the selected standard deviation values are symmetrical.) The conversion table would be as follows:

≥ 85 A
69-84 B
57-68 C
40-56 D
 ≤ 39 F

This actually results in 18 D's and 4 F's because of a tie at the score of 57. Remember that selection of the standard deviation values is somewhat subjective, so it is best to err in favor of the students.

11. The Fitnessgram and the President's National.