

1.1.D1 ~ Quantities & Relationships

Past due on _____ Period _____

SPIRAL REVIEW**Use inverse operations to solve each equation. Show all work.**

1) $82 = -10 + 4x$

2) $193 = -7 - 10m$

3) $-137 = 10 + 7k$

4) $7n + 1 = 57$

5) $-173 = 7 - 12n$

6) $-12 = 9 - 3n$

Simplify each expression: first distribute and then combine like terms.

7) $-8(4x + 4) - 9$

8) $9(10 - 3n) - 5n$

9) $-5n + 2(9n - 4)$

10) $-7 - 10(n + 10)$

NEW ~ Lesson 1.1

Read each scenario and identify the independent and dependent quantities. Be sure to include the appropriate units of measure. (Refer to the example "Identifying the Dependent and Independent Quantities for a Problem Situation" on page 63 of the Chapter 1 Summary.)

- 11) Gillian is playing video games at an arcade. Gillian starts with \$40 and is playing games that cost 50 cents per game.

Independent quantity:

Dependent quantity:

- 12) A commuter flight between two cities in Oregon takes about 40 minutes. The plane will increase its altitude for the first half of the flight until it gets to 18,000 feet, and then it will descend for the second half of the flight. The plane ascends and descends at a constant rate of 900 feet per minute.

Independent quantity:

Dependent quantity:

- 13) Julian works as a salesman for a textbook company. He receives a monthly salary of \$3000 as well as a 10% commission on the amount of sales.

Independent quantity:

Dependent quantity:

- 14) A freshly made cup of tea is served at a temperature of about 180°F. The tea cools rapidly at first, and then slows down gradually as it approaches room temperature.

Independent quantity:

Dependent quantity:

- 15) The Elkwood Aquatic Society is working with various reptile species to increase their populations. In their latest effort, the initial population of 450 endangered turtles tripled each year for the past five years.

Independent quantity:

Dependent quantity: