

Practice 9.1

Name _____

Solve the problem.

- 1) The formula $C = 23d + 20$ describes the total cost of renting a truck, where C is the total cost and d is the number of days the truck is rented. How many days can the truck be rented for \$ 250?

- 2) The temperature, t , in degrees Fahrenheit, of water being heated is $67 + \frac{1}{3}m$ where m is the number of minutes since heating began. How long will it take for the temperature of the water to reach 70 degrees Fahrenheit?

Determine whether the equation is linear. If it is linear, give values for a and b so that the equation can be written in the form $ax + b = 0$.

3) $\frac{13}{x} + 24 = 27$

4) $5(x - 6) = 0$

Determine whether the equation has no solution, one solution, or infinitely many solutions.

5) $35m + 25 = 5(2m + 45)$

6) $55 = 8x - 9$

7) $5(x + 4) = 5x + 20$

Solve the equation.

8) $10m - 3 = -1 + 5m$

9) $\frac{1}{5}a - \frac{1}{5} = -3$

10) $(y - 11) - (y + 10) = 8y$

11) $9x + 7(3x - 4) = 7 - 5x$

$$12) \quad 2 + 2(2x - 4) = 4x - 6x$$

Solve the formula for the specified variable.

$$13) \quad S = 2\pi rh + 2\pi r^2 \text{ for } h$$

$$14) \quad P = 2L + 2W \text{ for } L$$

Answer Key

Testname: WKS_09.1

- 1) 10 days
- 2) 9 min
- 3) No
- 4) Yes; $a = 5$, $b = -30$
- 5) One solution
- 6) One solution
- 7) Infinitely many solutions
- 8) $\frac{2}{5}$
- 9) -14
- 10) $-\frac{21}{8}$
- 11) 1
- 12) 1
- 13) $h = \frac{S - 2\pi r^2}{2\pi r}$
- 14) $L = \frac{P - 2W}{2}$