

# Assignment 32

1. Which step would *not* be a possible first step for solving the following equation algebraically?

$$\frac{3}{4}(8q - 12) + 3\frac{5}{6} = 6 + \frac{1}{4}q$$

- A multiply every term in the equation by 12
  - B subtract  $3\frac{5}{6}$  from 6
  - C multiply  $-12$  by  $\frac{3}{4}$
  - D subtract  $\frac{1}{4}q$  from  $8q$
2. The table below shows the hours worked last week by employees at an insurance company.

	< 30 hours	30–40 hours	> 40 hours
Managers	5	15	8
Office Staff	35	15	8

Of all the employees, what is the relative frequency of managers who work more than 40 hours per week?

- A 8%
  - B 9.3%
  - C 28.8%
  - D 40%
3. Which equation represents a linear function?

- A  $y = \frac{1}{x} + 2$
- B  $y = x^2$
- C  $y = 1 - \frac{4}{3}x$
- D  $y = 10 + \frac{5}{6}x^3$

4. How many solutions does the following equation have?

$$7x + 9 = \frac{1}{2}(8x - 12)$$

- A no solutions
- B infinitely many solutions
- C one solution,  $x = -\frac{21}{5}$
- D one solution,  $x = -5$

# Assignment 32

**74** Consider the equation below.

$$\frac{1}{5}(x + 2) + 2x = 6x - 10$$

**Part A**

Which property can be used to simplify the expression  $\frac{1}{5}(x + 2)$ ?

*Answer* \_\_\_\_\_

**Part B**

Move all  $x$ -terms to one side of the equation and simplify.

*Show your work.*

*Answer* \_\_\_\_\_

**Part C**

What is the value of  $x$ ?

*Show your work.*

*Answer* \_\_\_\_\_