

Name \_\_\_\_\_

Find the value of  $x$  that makes the equation true. CHECK your answer.

1.  $-5(2x - 9) + 17 = 6x - 6$

2. Solve and check:  $5(3x + 4) - 2x = 6x + 6x - 43$

3. Solve and check:  $11(x + 10) = 132$

4. The sum of three consecutive integers is 84. Determine the smallest integer.

5. If  $c = 2m + d$ , find the value of  $m$ .

6. The formula for the volume of a right circular cylinder is  $V = \pi r^2 h$ . The value of  $h$  can be expressed as

1)  $\frac{V}{\pi} r^2$

2)  $\frac{V}{\pi r^2}$

3)  $\frac{\pi r^2}{V}$

4)  $V - \pi r^2$

7. Shoe sizes and foot length are related by the formula  $S = 3F - 24$ , where  $S$  represents the shoe size and  $F$  represents the length of the foot, in inches.

A) Solve the formula for  $F$ .

B) To the *nearest tenth of an inch*, how long is the foot of a person who wears a size  $10\frac{1}{2}$  shoe?