Algebra 1: 2 Intro & 2.2 Review Name _____ Period _____

Solve each function for the given input value. The function $R(t) = 5t + 3$ represents the total amount of money in dollars Billy earns watering his neighbor's plants after receiving a $3 bonus as a function of time in hours.

1. $R(4) = 5(4) + 3$

$20 + 3$

23

Billy earns $23 working 4 hours.

2. $R(3.5) = 5(3.5) + 3$

$17.5 + 3$

20.5

Billy earns $20.50 working 3½ hours.

3. $R(2.75) = 5(2.75) + 3$

$13.75 + 3$

16.75

Billy earns $16.75 working $2\frac{3}{4}$ hours.

4. $R(6) = 5(6) + 3$

$30 + 3$

33

Billy earns $33 working 6 hours.

Substitute $f(x)$ and solve for x.

5. $f(x) = -40x + 1200$ when $f(x) = 720$

$720 = -40x + 1200$

$-1200 \quad -1200$

$-480 = -40x$

$\frac{-480}{-40} = \frac{-40x}{-40}$

$12 = x$

6. $f(x) = 4x - 7$ when $f(x) = 8$

$8 = 4x - 7$

$+7 \quad +7$

$\frac{15}{4} = \frac{4x}{4}$

$3.75 = x$

7. $f(x) = -200x + 2400$ when $f(x) = 450$

$450 = -200x + 2400$

$-2400 \quad -2400$

$\frac{-1950}{-200} = \frac{-200x}{-200}$

$9.75 = x$

8. $f(x) = 12x + 90$ when $f(x) = 420$

$420 = 12x + 90$

$-90 \quad -90$

$\frac{330}{12} = \frac{12x}{12}$

$27.5 = x$