

NAME: _____ Score _____/10

Please **print** your name

1. **(2 points)** A blue car travels 6 mph less than twice the speed of a red car.

Let x be the speed of the red car.

Then the speed of the blue car is $2x - 6$.

How far does the blue car travel in 2 hours? $2(2x - 6) = 4x - 12$.

2. **(5 points)** Solve the equation $\pi x + 5 = 4 - \sqrt{7}x$.

$$\pi x + 5 = 4 - \sqrt{7}x$$

$$\pi x + \sqrt{7}x + 5 = 4$$

$$\pi x + \sqrt{7}x = -1$$

$$(\pi + \sqrt{7})x = -1$$

$$x = \frac{-1}{\pi + \sqrt{7}}$$

3. **(3 points)** Solve $36\pi = \left(\frac{3}{2}\right)15\pi M$ for M

$$M = \frac{(36\pi)\left(\frac{2}{3}\right)}{15\pi} = \frac{(12\pi)(2)}{(3)(5)\pi} = \frac{(4\pi)(2)}{(5)\pi} = \frac{8}{5}$$