Equations with Decimals

1. Answer the following questions.

a) A car rental company charges $22.75 per day and $0.15 per mile. How much does it cost to rent a car for one week to drive a total of 714 miles?

2. What number must be multiplied to 3.801 to get 3.804801?

3. A pay as you call cell phone company charges $0.50 per minute for the first 10 minutes and $0.12 for each additional minute. How much will a 30 minute phone call cost?

4. A circle has an area of 16π in². What is its diameter.

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1. Answer the following questions.

a) A car rental company charges $22.75 per day and $0.15 per mile. How much does it cost to rent a car for one week to drive a total of 714 miles?

$$\text{Total Cost} = 7(22.75) + 714(0.15)$$
$$= 159.25 + 107.10$$
$$= \boxed{266.35}$$

2. What number must be multiplied to 3.801 to get 3.804801?

$$\frac{3.801 \cdot x}{3.801} = \frac{3.804801}{3.801}$$

$$\boxed{x = 1.001}$$

3. A pay as you call cell phone company charges $0.50 per minute for the first 10 minutes and $0.12 for each additional minute. How much will a 30 minute phone call cost?

First + Additional

$$30 = 10 + 20$$

$$Total\ Cost = 10(0.50) + 20(0.12)$$
$$= 5.00 + 2.40$$
$$= \boxed{7.40}$$

4. A circle has an area of 16π in². What is its diameter.

$$A = \pi r^2$$
$$\frac{16\pi}{\pi} = \frac{\pi r^2}{\pi}$$
$$16 = r^2$$
$$4 = r$$

$$d = 2r$$
$$d = 2(4)$$
$$\boxed{d = 8in}$$