5.3 Multiplying Decimals And Circumference Of A Circle

*** Multiplying Decimal Numbers**

1. Ignore the decimal points and multiply as they are whole numbers
2. The number of decimal places in the product is equal to the sum of the number of decimal places in the factors

Ex 1. Perform indicated operations.

a. 34.8×0.62

b. 0.0641×71

c. $(7.3)(-0.9)$

d. -15.463×10

e. -15.463×100

f. -15.463×1000

g. -15.463×0.1

h. -15.463×0.01

*** Multiplying Decimals by Power of 10 such as 10, 100, 1000, 10000, …**
Move the decimal point to the right the same number of places as there are zeros in the power of 10.

*** Multiplying Decimals by Power of 10 such as 0.1, 0.01, 0.001, 0.0001, …**
Move the decimal point to the left the same number of places as there are decimal places in the power of 10.

Ex 2. Perform indicated operations.

a. 46.8 x 10 =

b. 203.004 x 100 =

c. – 2.33 x 1000 =

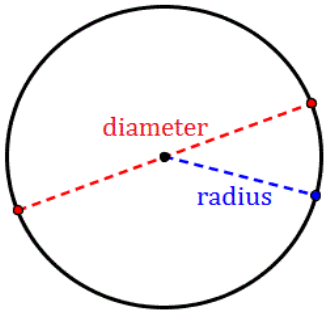
d. 6.94 x 0.1 =

e. 3.9 x 0.01 =

f. – 7682 x 0.001 =

*** Finding the Circumference of a Circle**

Def. The distance around a circle is called circumference.



Notation	Formula
Diameter = d	Circumference = $\pi \cdot diameter$
	$C = \pi \cdot d$
Radius = r	Circumference = $2 \cdot \pi \cdot radius$
$d = 2r$	$C = 2 \cdot \pi \cdot r$

Ex 3. Find the circumference of a circle whose radius is 11 meters. Then use the approximation 3.14 for π to approximate this circumference.

Ex 4. Find the circumference of a circle whose diameter is 2.2 meters. Then use the approximation 3.14 for π to approximate this circumference.