Geometry

6.1 Ratios, Proportions, and the Geometric Mean

# Ratio

number

Comparing

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ one \_\_\_\_\_\_\_\_\_\_\_\_\_ to another.

1:64

Written as \_\_\_\_\_\_\_\_or\_\_\_\_\_\_\_\_\_

Simplify the ratio 24 yards to 3 yards

A triangle’s angle measures are in the extended ratio of 1 : 3 : 5. Find the measures of the angles

1x + 3x + 5x = 180

9x = 180

x = 20

Angles are 20, 60, 100

# Proportion

equal

ratios

Two \_\_\_\_\_\_\_\_\_\_ that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ are a proportion.

is a proportion

equal

cross

products

The \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ of a proportion are \_\_\_\_\_\_\_\_\_.

The height of my toy tractor is 1.5 inches, what is the height of the real tractor?

1x = 64(1.5) 🡪 x = 96

The real tractor is 96 inches tall (8 feet)

Find value of x.

## Geometric Mean

b

a

positive

The geometric mean of two \_\_\_\_\_\_\_\_\_\_\_\_\_ numbers \_\_\_\_ and \_\_\_\_ is the positive number x that satisfies \_\_\_\_\_\_\_\_\_\_. So, \_\_\_\_\_\_\_\_\_\_\_

Find the geometric mean of 18 and 54.

Assignment: 360 #4-44 even, 50, 52, 60, 72-80 even = 29