

Math 9
Mrs. vander Vossen

SCALE : shown as a Ratio 1:15

- Fraction $\frac{3}{4}$
- Percent 25%
- Words

A comparison between the SIZE of an objects DRAWING and the REAL size of the object

$$S = \frac{d}{r}$$

drawing or diagram

real aka actual

1st:2nd

↕

1st
2nd

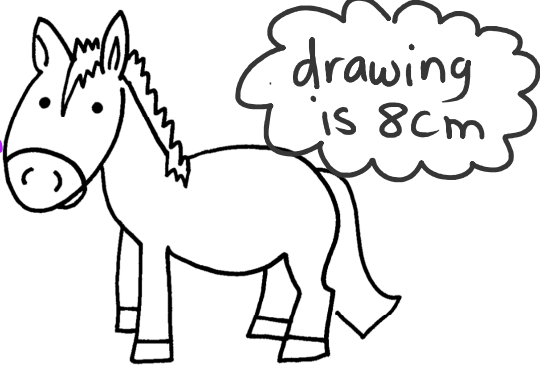
A horse has a Real length of 240cm. How long should my drawing be if I used a Scale of 1:30?

rewrite

$$S = \frac{d}{r}$$

$$S = \frac{1}{30} = \frac{?}{240cm}$$

240 x 1 ÷ 30



drawing is 8cm

The scale for the drawing below is $1:9.2$. If the drawing measures 6.5cm , how large is $\frac{1}{9.2}$ Bacon?

$S = \frac{d}{r} = \frac{1}{9.2} = \frac{6.5}{\text{Bacon?}}$

$6.5 \times 9.2 \div 1$
 Bacon is 59.8cm

ex: maps

Always has a SF < 1 ← **Reduction** Real Larger

If looking for S.F. use THIS

$SF = \frac{1}{?} = \frac{d}{r}$

Scale factor is always

Enlargement

Always has a SF > 1

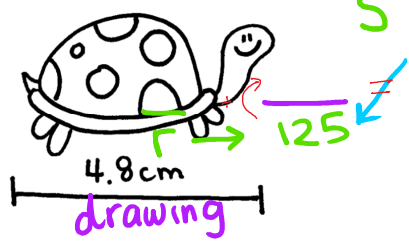
drawing real
 Top < denominator
 ex: $\frac{1}{2}$, 0.5



ex: bacteria drawings

drawing real
 numerator > den
 ex: $\frac{5}{2}$, 2.5

What scale factor was used to create the turtle below if a real turtle is 125cm ?



$S \frac{d}{r} \rightarrow 4.8$

cross mult \div
 $1 \times 125 \div 4.8$

$SF = \frac{1}{26}$ NOT SF = 26

$SF = 0.04$
 $1 \div 26 \rightarrow$