

Help Card 1a Estimating and Volume

Converting feet into metres

1 foot = 30 cm 100cm = 1m

Example

17 feet = $17 \times 30 \text{ cm} = 510 \text{ cm}$

$510 \text{ cm} = 510 \div 100 = 5.1 \text{ m}$

Calculating Volume

Assume that each room or compartment is a cuboid.

Volume = length x width x height

Calculating "cargo density"

Example:

200 slaves are packed into a room that is 9m long by 5m wide and is 1.5m high

Calculate the volume: $9 \times 5 \times 1.5 = 67.5\text{m}^3$

Cargo density = number of slaves \div volume

$200 \div 67.5 = 2.962962\ldots$

Rounding: 2.96 slaves per m³

Help Card 1b The Cost of Shipping

Converting old money into new money

Old money was pounds (£), shillings (s) and pence (d).

There were 20 shillings in a pound and 12 pennies in a shilling.

Example

Convert £2 19s

There were 20 shillings in a pound so one shilling is worth 5p ($100 \div 20 = 5$)

$19 \times 5 = 95$

So £2 19s = £2.95

Calculating percentages

Example

7% of £7560

$\frac{7}{100} \times 7560 = 529.20$

So 7% of £7560 = £529.20

(Leave your answers in pounds and pence)

You may have your own,
different method.
Use the method you prefer.

Transactions*Example*

Use *"Traded 2 half barrels of gunpowder for:
Men 0 Women 1 Boys 0 Girls 0"*

You give: 30 half barrels of gunpowder

You get: 15 women

Example

Use *"A male slave cost 12 guns"*

(You can read this on the background notes)

You want to buy 20 male slaves

You pay 20 x 12 = 240 guns.

Remember to total up all the goods that you have exchanged for slaves and write the amounts in the cargo list.

Calculating the percentage of the population that were slaves.*Example*

Delaware in 1860:

Number of slaves = 1798

Total population = 112,218

$$\frac{1798}{112218} \times 100 = 1.60223.....$$

Rounding:

Percentage of Delaware that were slaves = 1.6%

Calculating the price of rum.

There 240 old pennies in a pound (12 pennies in a shilling and 20 shillings in a pound)

Example

If rum costs 6 and a half pennies a gallon to make and we need 120 gallons to buy a slave:

The price would be $120 \times 6.5 = 780$ pennies

There are 240 pennies in a pound:

Price in pounds = $780 \div 240 = \underline{\pounds 3.25}$

Calculating Percentage profit*Example*

If you buy at £4.80 and sell at £15.60, what is your percentage profit?

Your profit in pounds: $15.60 - 4.80 = 10.80$

This is then calculated as a percentage of the buying price:

$$\frac{10.80}{4.80} \times 100 = 225$$

You make 225% profit.

Using cowry shells*Example*

A slave cost 500 lbs of cowries and cowries were worth £2.90 per hundredweight (cwt).

A hundredweight is 112 pounds

What was the price of this slave?

(Cwt is the shorthand for hundredweight.)

You need to find how many hundredweights you need:

$$500 \div 112 = 4.4642857$$

(Don't round until the end of your calculation)

The price per hundredweight is £2.90

$$\text{Total price} = 4.4642857 \times 2.90 = 12.9464.....$$

Rounding: The price of a slave was £12.95