

# Two holograph copies of a mathematical demonstration of MINT00291 (/catalogue/record/MINT00291) (Mint 19/3/444).

**Author:** Isaac Newton

**Source:** MINT 19/3/441, 442, National Archives, Kew, Richmond, Surrey, UK

---

<441r>

Because Merchants pretend that they are to be taxed, not for the Duty they pay to the King, but only fore the Excess of the value of their Goods above the Duty: for doing this following Probleme is proposed.

Probleme.

To lay a Duty at any assigned Rate upon the Excess of the Value of any parcel of Goods above the Duty.

Solution.

By the rule of fals Position, assume any Excess at pleasure & the Rate will give the Duty upon it, & the Duty added to the Excess will compose the value of the Goods in this case. And by the Golden Rule: As this Value is to the Duty, so is the Value of any parcel of goods to the Duty upon them.

Example 1

If the rate be 9 per cent, & the Excess assumed be  $100^{\text{li}}$ , the Duty will be  $9^{\text{li}}$  & the value of the goods  $109^{\text{li}}$ . And by the Golden Rule, As 109 to 9, so is the Value of any parcel of Goods to the Duty upon them.

Example 2.

If the rate be 20 per cent, & the Excess assumed be  $100^{\text{li}}$  the Duty will be  $20^{\text{li}}$  & that Value of the Goods  $120^{\text{li}}$ . And by the Golden Rule, As 120 to 20, so is the value of any parcel of goods to the Duty upon them.

NB. Here by the value of the Goods is to be understood the clear value which remains after the charges of warehouse room, & all other charges except the Duty, are subducted.

### Demonstration.

For as the Value of the goods is to the Duty upon them in any one case, so is the Value of the goods to the Duty upon them in all other cases.

<442r>

Because Merchants pretend that they are not to be taxed for the Duty they pay to the king but only the excess of the value of their goods above the Duty: for doing this the following probleme is proposed

Problem.

To lay a Duty at any assigned rate upon the excess of the value of any parcel of goods above the Duty.

Solution.

By the Rule of fals Position, assume any Excess at pleasure, & the rate will give the Duty upon it, & the Duty added to the Excess will compose the value of the goods in this case. And by the golden Rule, As this value is to the Duty, so is the Value of any parcel of goods to the Duty upon them.

Example 1

If the Excess assumed be  $100^{\overline{\text{li}}}$  & the rate 9 per cent, the Duty will be  $9^{\overline{\text{li}}}$ , & the value of the goods  $109^{\overline{\text{li}}}$ . And by the golden Rule: As 109 to 9, so is the value of any parcel of Goods to the Duty upon them

Example 2

If the Excess assumed be  $100^{\overline{\text{li}}}$  & the rate 20 per cent the Duty will be  $20^{\overline{\text{li}}}$  & the value of the goods  $120^{\overline{\text{li}}}$ . And by the golden Rule; As 120 to 20, so is the value of any parcel of goods to the Duty upon them.

NB. Here by the value of the goods, is to be understood the clear value which remains after the charges of warehouse room & all other charges except the Duty are subducted.

---