

more than B. At what rate did each go, the distance being 186 miles?

(10) A coach, which runs the whole distance in 31 hours, starts from London at the same time that another, which does it in 21 hours, starts from Manchester. Required the number of hours elapsed, and the distance travelled by each when they meet.

(11) A load of corn was sold for £15. at a *loss* of 15 per cent. What should it have been sold for to *gain* as much per cent. as the corn cost?

(12) Two men purchased a grinding stone 42 inches in diameter for a guinea; of which the first paid twelve shillings. They agree that the first shall use it till his share is worn down. What will be the diameter when the second receives it?

(13) If A and B together do a piece of work in $7\frac{3}{4}$ days, which A alone would accomplish in $12\frac{1}{2}$ days; in what time would B do it himself?

(14) A person lent £400. and agreed to receive in return a yearly payment of £50. for 13 years. Whether would he gain or lose thereby, reckoning Compound Interest at £5. per cent. per annum?

(15) By selling a horse for £50. I gained one-fourth of what he cost me; but the whole cost (including the expense of his keep) was one-fourth more than the original purchase. How much did I give for him, what did I expend in keeping him and what did I gain in per cent.?

(16) It has been found by experiment, that sound is conveyed through the air at the rate of 1142 feet in a second. How far distant is the cloud, when $7\frac{3}{4}$ seconds elapse between seeing the flash of lightning and hearing the thunder?

(17) What is the height of a tower that projects a shadow 75.75 yards long, at the same time that a perpendicular staff, 3 feet high, gives a shade of 4.55 feet in length?

(18) A bankrupt owes £2580. and the value of his effects is £846. and the amount of recoverable debts £358.12. besides which he has an unexpired lease that has 13 years to run, valued at £12. a year more than the stipulated rent. If the lease be disposed of for present money, allowing Compound Interest at £5. per cent. per annum; and if the working of the commission and other expenses amount to £472; what will his creditors have in the pound, provided they allow him £150. to recommence business?

(19) A youth aged 12 years, having had bequeathed to him

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