

Series 291

| Find— | | \$ | \$ | \$ |
|-------|---------------------|------|------|-----|
| 1. | 20% profit on | 5, | 25, | 45 |
| 2. | 25% loss on | 4, | 33, | 76 |
| 3. | 4% commission on | 25, | 75, | 125 |
| 4. | 12½% interest on | 64, | 96, | 160 |
| 5. | 16⅔% duty on | 6, | 36, | 72 |
| 6. | 8½% discount on | 12, | 72, | 60 |
| 7. | 37½% premium on | 80, | 32, | 48 |
| 8. | 66⅔% advance on | 9, | 27, | 75 |
| 9. | 6½% brokerage on | 32, | 64, | 256 |
| 10. | 31½% assessment on | 48, | 80, | 144 |
| 11. | 87½% dividend on | 16, | 72, | 108 |
| 12. | 22⅔% tax on | 27, | 45, | 63 |
| 13. | 28⅔% rebate on | 21, | 35, | 56 |
| 14. | 7⅞% allowance on | 26, | 39, | 78 |
| 15. | 75% of the value of | 24, | 32, | 28 |
| 16. | 90% " " | 70, | 110, | 40 |
| 17. | 31½% " " | 86, | 475, | 373 |
| 18. | 43⅓% " " | 374, | 228, | 937 |
| 19. | 50% " " | ½ | ½ | ½ |
| 20. | 125% " " | 7.50 | 375 | |

In addition to the methods suggested by the table such as dividing by 4 to get 25%, dividing by 3 to get 33⅓%, and so on, a number of percentages can be rapidly calculated from the 10% base. In billing, the student should cultivate the habit of writing the percentage on the paper direct, without carrying the work to a scratch pad, and back to the bill.

Illustrations—

10% of \$747.25 = \$74.73.

Move the decimal point one place to the left, getting \$74.725. If the mills are 5 or over, add one cent. if less than 5 mills, drop them altogether. Thus, to the nearest cent, the answer is \$74.73.

20% of \$747.25 = \$149.45.

See first what 10% would be \$74.725. Taking twice this figure to the nearest cent we have \$149.45.

30% of \$747.25 = \$224.18.

Again, 10% = \$74.725, 30% is three times the amount or \$224.18. In this way 40%, 50%, 60%, 70%, 80%, or 90% of any number may be immediately written.

2½% of \$747.25 = \$18.68.

As before, 10% = \$74.725, 2½ is ¼ of 10%. ¼ of \$74.725 = \$18.68.

In other words, see 10% first and divide by 4.

Note—In placing the last figure see if the division if carried out another place would give 5 mills or over. If so, follow the rule by adding an extra cent.

3½% of \$747.25 = \$24.91.

See 10% first and divide by 3.

What is 36% of \$2500?

¼ of \$3600 = \$900.

Solution—Since 36 times 25 will give the same product as 25 times 36, 36% of \$2500 will give the same result as 25% of \$3600. 25% is ¼ of a number; therefore, ¼ of \$3600, or \$900, is the required result.

What is 16% of \$12,500?

¼ of 16,000 = \$2000.

Solution—16 times 12½ will give the same product as 12½ times 16; hence, 16% of \$12,500 is equivalent to 12½% of \$16,000. 12½% is ¼ of a number; ¼ of \$16,000 is \$2000, or the required result.

What is 24% of \$37,500?

24,000 × ¾ = \$9000.

Solution—24 times 37½ will give the same product as 37½ times 24; hence, 24% of \$37,500 is equivalent to 37½% of \$24,000. 37½% is ¾ of a number; ¾ of \$24,000 is \$9,000, or the required result.