

Mental Math

We can use mental math rearrange numbers in our head to help solve questions.

1. **commutative property:** $9 \times 2 = 2 \times 9$
2. **skip counting:** $8 \times 2 = 2, 4, 6, 8, 10, 12, 14, 16$
3. **associative property:** $(2 \times 5) \times 8 = 2 \times (5 \times 8)$
4. **distributive property:** $4 \times 5 = 4 \times (2 + 3) = (4 \times 2) + (4 \times 3) = 8 + 12$
5. **doubling:** $2 \times 8 = (8 + 8) = 16$
6. **multiples of 10s:** $4 \times 10 = 40, 4 \times 100 = 400, 4 \times 1000 = 4000$
7. **compensation property:** $74 + 86 = (74 + 6) + (86 - 6) = 80 + 80 = 160$
8. **halving:** $12 \div 2 = 1/2$ of $12 = 6$
9. **repeated halving:** $16 \div 4 = 1/2$ of $16 = 8$ $1/2$ of $8 = 4$
10. **distributive property:** $36 \div 4 = (32 + 4) \div 4 = (32 \div 4) + (4 \div 4) = 8 + 1$
11. **multiples of 10:** $4\ 000 \div 10 = 400, 4\ 000 \div 100 = 40, 4\ 000 \div 1000 = 4$
12. **your own ways**