

Mental Math

There are several ways that you can add and subtract decimals mentally to solve a problem.

Commutative Property of Addition

You can add two decimal numbers in any order.

$$15.75 + 2.25 = 2.25 + 15.75$$

Compatible numbers are numbers that are easy to compute mentally.

$$2.6 + 9.3 + 7.4$$

2.6 and 7.4 are compatible because they are easy to add.

$$\begin{aligned} 2.6 + 9.3 + 7.4 &= (2.6 + 7.4) + 9.3 \\ &= 10 + 9.3 = 19.3 \end{aligned}$$

Associative Property of Addition

You can change the groupings of addends.

$$1.7 + (1.3 + 7) = (1.7 + 1.3) + 7$$

With **compensation**, you adjust one or both decimal numbers to make computations easier and compensate to get the final answer.

$$\begin{array}{r} 3.76 - 1.26 \\ - .01 - .01 \\ \hline \downarrow \quad \downarrow \\ 3.75 - 1.25 = 2.5 \end{array}$$

Add or subtract mentally.

1. $16.9 + 12.1 =$ _____

2. $100.5 - 21.5 =$ _____

3. $8.01 + 1.09 =$ _____

4. $2.65 + 4.01 + 3.34 =$ _____

5. How much heavier is a Hippo than a Moose?

6. How heavy are the Elephant and the Rhino combined?

7. What is the total weight of all four animals?

Weight of Zoo Animals

Animal	Weight (Tons)
Hippo	2.5
Elephant	3.85
Rhino	2.15
Moose	.5