

Make 24!

Directions: Using only addition, subtraction, multiplication, and division, can you use each of the 4 numbers once, and only once, to get 24? The first example is done for you. BTW, there are many ways to do each problem – see how many you can find!

Some solutions for each problem are on the second sheet.

Example: 2, 3, 4, 6

One solution is: $3 - 2 = 1$, $1 \times 4 = 4$, and $4 \times 6 = 24$

Another solution is: $6 - 3 = 3$, $3 \times 4 = 12$, and $12 \times 2 = 24$

1. 1, 2, 3, 4

2. 1, 2, 4, 6

3. 3, 4, 6, 8

4. 2, 3, 4, 6

5. 2, 3, 4, 4

6. 3, 4, 5, 5

7. 2, 4, 8, 8

Make 24!

Possible solutions:

1. 1, 2, 3, 4

$$1 \times 2 \times 3 \times 4 = 24$$

$$(3 + 2 + 1) \times 4 = 24$$

$$(4 \div 1) \times 2 \times 3 = 24$$

2. 1, 2, 4, 6

$$(2 - 1) \times 4 \times 6 = 24$$

$$(6 + 2) \times (4 - 1) = 24$$

$$(4 \div (2 - 1)) \times 6 = 24$$

3. 3, 4, 6, 8

$$(8 - 6) \times 4 \times 3 = 24$$

$$(6 \div 3) \times (4 + 8) = 24$$

$$((3 \times 4) - 8) \times 6 = 24$$

4. 2, 3, 4, 6

$$(3 \times 4) + (2 \times 6) = 24$$

$$(3 \times 6) + 4 + 2 = 24$$

$$(6 + 4 - 2) \times 3 = 24$$

5. 2, 3, 4, 4

$$(4 \times 4 \times 3) \div 2 = 24$$

$$(4 \div 2) \times 3 \times 4 = 24$$

$$((2 + 3) \times 4) + 4 = 24$$

6. 3, 4, 5, 5

$$(5 \times 5) + 3 - 4 = 24$$

$$(3 \times 5) + 4 + 5 = 24$$

$$(3 + (5 \times 5) - 4) = 24$$

7. 2, 4, 8, 8

$$(2 \times 4) + 8 + 8 = 24$$

$$((8 + 8) - 4) \times 2 = 24$$

$$(8 - 2) \times (8 - 4) = 24$$