Let {1, 2, 3, 4, 5, 6, 7, 8, 9} play with 6:

$$(1+1+1)! = 6$$
$$2 + 2 + 2 = 6$$
$$3 \times 3 - 3 = 6$$
$$\sqrt{4} + \sqrt{4} + \sqrt{4} = 6$$
$$5 \div 5 + 5 = 6$$
$$6 - 6 + 6 = 6$$
$$7 - 7 \div 7 = 6$$
$$\sqrt[3]{8} + \sqrt[3]{8} + \sqrt[3]{8} = 6$$
$$\sqrt{9} \times \sqrt{9} - \sqrt{9} = 6$$

GRC ☺