

有理数计算

一、口算

$$(-16) + (-8) =$$

$$-2 + 12 =$$

$$78 + (-85) =$$

$$(-14) - (+15) =$$

$$(-15) + (+9) =$$

$$4 - (-16) =$$

$$-10 - (-3) =$$

$$\frac{1}{3} - \frac{1}{2} =$$

$$84 \times \left(-\frac{1}{3}\right) =$$

$$\frac{3}{4} \div (-0.25) =$$

$$\frac{2}{3} \times \left(-\frac{3}{4}\right) =$$

$$7.2 \div (-2.4) =$$

$$0.42 \div (-0.3) =$$

$$-(-2)^3 =$$

$$(-1)^{2024} =$$

$$-\frac{3}{-4^2} =$$

二、幂运算

$$(1 \div 2)^{-2} - (-5^2)^0 + \left(-\frac{1}{4}\right)^{-1} =$$

$$(4ab^2)^2 \times \left(-\frac{1}{2}a^2b\right)^3 =$$

已知 $a^x = 2, a^y = 3$ 求 a^{x+y} 与 a^{2x-y} 的值

$$3^m = x, 3^n = y, \text{用 } x, y \text{ 表示 } 3^{3m+2n}$$

若 $2x + 5y - 3 = 0$, 求 $4^x \times 32^y$ 的值

若 $(a^n b^m b)^3 = a^9 b^{15}$, 求 2^{m+n} 的值

三、指数幂化简

$$a^2 b^3 (2a^{-1} b^3)$$

$$(a^{-2})^{-3}(bc^{-1})^3$$

$$2(2ab^2c^{-3})^2 \div (ab)^{-2}$$

五、混合运算

$$-2^3 \div (-3)^2 \times (-2) =$$

$$-4\frac{2}{3} \times 0.6 + 17 \div \frac{1}{2} + (-\frac{3}{5}) \times (1 - \frac{1}{3}) - 17 =$$

$$(-\frac{5}{8}) \times (-4)^2 - 0.25 \times (-5) \times (-4)^3 =$$

$$(-\frac{1}{2})^{2012} \times (-2)^{2011} =$$

$$(-1) + (-1)^2 + \dots + (-1)^{2013} =$$