

BC Math 9 BEDMAS Operations 2

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$$1. \quad 3 + 5 \times 3$$

$$3 + 15 = 18$$

$$2. \quad -2^2 + (-5)^2$$

$$-4 + 25 = 21$$

$$3. \quad 1 - (-7)^2$$

$$1 - 49 = -48$$

$$4. \quad -5(-4)$$

$$20$$

$$5. \quad 1 + \frac{3}{4} + \frac{2}{5}$$

$$\frac{20}{20} + \frac{23}{20} = \frac{43}{20}$$

$$6. \quad \frac{4}{3} \div 2\frac{1}{2}$$

$$\frac{4}{3} \div \frac{5}{2}$$

$$\frac{4}{3} \times \frac{2}{5} = \frac{8}{15}$$

$$7. \quad \frac{1/5}{3/2}$$

$$\frac{1}{5} \div \frac{3}{2}$$

$$\frac{1}{5} \times \frac{2}{3}$$

$$\frac{2}{15}$$

$$8. \quad \left(\frac{2}{3}\right)^2 + \frac{0}{2} - \sqrt{\frac{9}{4}}$$

$$\frac{4}{9} + 0 - \frac{3}{2}$$

$$\frac{8}{18} - \frac{27}{18} = -\frac{19}{18}$$

$$9. \quad -3(-2) \div (-1)^2 + (1^0 + 0^1)$$

$$6 \div 1 + (1 + 0)$$

$$6 + 1 = 7$$

$$10. \quad \sqrt[3]{-27} + \left(\frac{3}{4}\right)^2$$

$$-3 + \frac{9}{16} = -\frac{48}{16} + \frac{9}{16} = -\frac{39}{16}$$

$$11. \text{ Express } \frac{314159}{5}$$

a. As a mixed fraction

$$62831\frac{4}{5}$$

- b. As a decimal number
62831.8

12. $0.\bar{6} + (4 - 2.\bar{3})$

$$\frac{2}{3} + \left(4 - \frac{7}{3}\right)$$
$$\frac{2}{3} + \left(\frac{12}{3} - \frac{7}{3}\right)$$
$$\frac{2}{3} + \frac{5}{3} = \frac{7}{3}$$

13. $\frac{12.8}{0.4}$
 $\frac{128}{4} = 32$

14. $\frac{12 \div 3}{\frac{2}{5}}$
 $4 \div \frac{2}{5}$
 $4 \times \frac{5}{2} = \frac{20}{2} = 10$

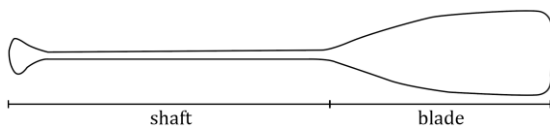
15. $3 - 4\left(\frac{2}{3}\right)^2$
 $3 - 4 \times \frac{4}{9} = \frac{27}{9} - \frac{16}{9} = \frac{11}{9}$

16. $-\frac{2}{5} \div \frac{1}{7} + \left(-\frac{1}{2} \times -\frac{3}{5}\right)$
 $-\frac{2}{5} \times \frac{7}{1} + \left(\frac{3}{10}\right)$
 $-\frac{14}{5} + \frac{3}{10} = -\frac{28}{10} + \frac{3}{10} = \frac{-25}{10} = -\frac{5}{2}$

17. $(-2^2)^3 - (-1)^{110} \div \left(\frac{4}{4^0}\right)$
 $(-4)^3 - 1 \div \left(\frac{4}{1}\right)$
 $-64 - 1 \div 4$
 $-64 - \frac{1}{4}$
 $-\frac{256}{4} - \frac{1}{4} = -\frac{257}{4}$

18. Challenge 1: $0 \div 0$
Undefined

19. Challenge 2: See diagram below:



Suppose the "shaft" of a canoe paddle is $\frac{3}{4}$ of its total length. The blade portion of the paddle is 40 cm. How long is the length of the paddle in meters?

Blade is $\frac{1}{4}$ of total length x
Blade is 40 cm = 0.4 m

$$\frac{1}{4}x = 0.4$$

Multiply by 4

$$x = 0.4 \times 4 = 1.6 \text{ m}$$