

BEDMAS and PEMDAS challenge

BEDMAS and PEMDAS name the same order. Use it to check, fix and solve.

1 Study the model.

Two names, one order

BEDMAS (Canada)

- B** Brackets
E Exponents
DM Divide, multiply
AS Add, subtract

PEMDAS (United States)

- P** Parentheses
E Exponents
MD Multiply, divide
AS Add, subtract

The trap

÷ and × have equal rank. So do + and −.
 Work them from left to right:

$$24 \div 4 \times 2 = 6 \times 2 = 12 \quad (\text{not } 3)$$

2 True or false? Circle T or F. If it is false, write the right value.

- | | |
|--|---|
| 1. $20 - 8 + 2 = 10$ ☐ T ☐ F Fix _____ | 2. $24 \div 4 \times 2 = 12$ ☐ T ☐ F Fix _____ |
| 3. $6 + 2^3 = 12$ ☐ T ☐ F Fix _____ | 4. $(6 + 2)^2 \div 4 = 16$ ☐ T ☐ F Fix _____ |
| 5. $18 - 3 \times 2^2 = 60$ ☐ T ☐ F Fix _____ | 6. $9 + 16 \div 4 \times 2 = 17$ ☐ T ☐ F Fix _____ |

3 Challenge: evaluate. Work from the innermost brackets out.

- | | |
|---|---|
| 7. $2 \times [18 - (3 + 1)^2]$ = <input type="text"/> | 8. $[(5 + 3) \times 2 - 4] \div 3$ = <input type="text"/> |
| 9. $50 - 2 \times (3^2 + 1)$ = <input type="text"/> | 10. $4^2 \div (10 - 2 \times 3)$ = <input type="text"/> |
| 11. $(7 - 2)^2 - 36 \div 3^2$ = <input type="text"/> | 12. $6 + 18 \div 3 \times 2 - 5$ = <input type="text"/> |

4 Solve the quiz bowl problems.

13. Siobhan uses BEDMAS. Her pen pal in Texas uses PEMDAS.
 What do they both get for $8 + 12 \div 4 \times 3$?

Answer

14. The last quiz bowl question is $5 + 3 \times (10 - 4)^2 \div 12$.
 What is the answer?

Answer