# 1.0 Order of Operations

## BEDMAS

1. Brackets
2. Exponents
3. Division and Multiplication → from left to right
4. Addition & Subtraction → from left to right


## Order Matters

Example 1: Evaluate. *(Simplify - answer should be one number.)*

a) $5 + 2 \times 3$

$= 5 + 6$

$= 11$

b) $(5 + 2) \times 3$

$= 7 \times 3$

$= 21$

$= (7)(3)$

$= (-7) \times 3$

c) $5 + 2 \times 3^2$ → $3 \times 3$

$= 5 + 2 \times 9$

$= 5 + 18$

$= 23$

d) $(5 + 2 \times 3)^2$

$= (5 + 6)^2$

$= (11)^2$ → $(11) \times (11)$

$= 121$

$= (5+6)^2 = (11)^2 = 121$

C


Communication:
- align equal signs vertically
- one equal sign per line

BEDMAS

dot means multiplication

Example 2: Evaluate.

a) $5+7[12-5(2)]$

$= 5+7[12-10]$

$= 5+7\times(2)$

$= 5+14$

$= 19$

b) $\dfrac{[4\cdot6-(5-3)]}{[(10\div2\cdot4)\div5]}$ ← Simplify top and bottom at the same time!

$= \dfrac{4\cdot6-(2)}{(20)\div5}$

$= \dfrac{24-2}{4}$

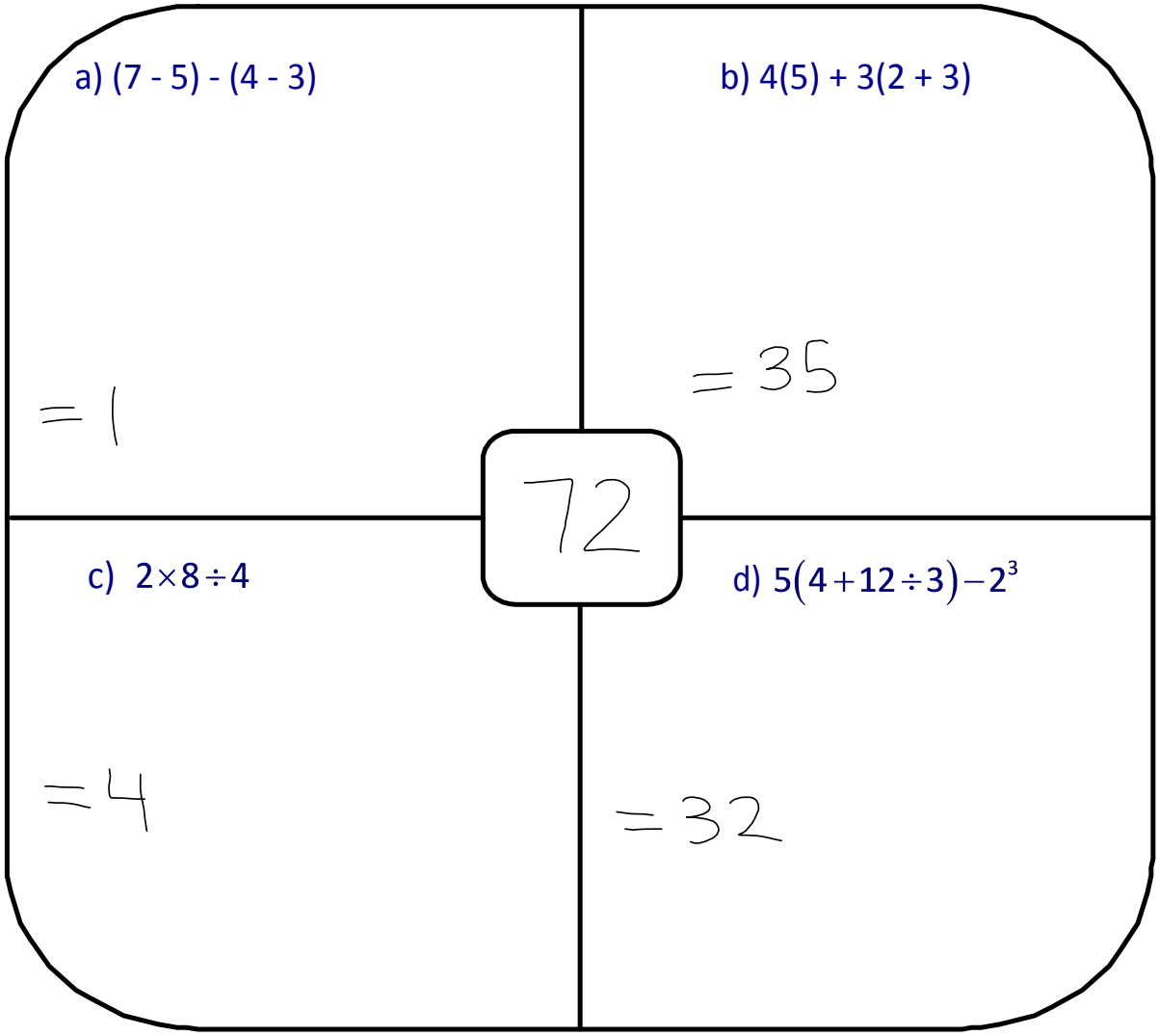
$= \dfrac{22}{4}$

$= \dfrac{11}{2}$

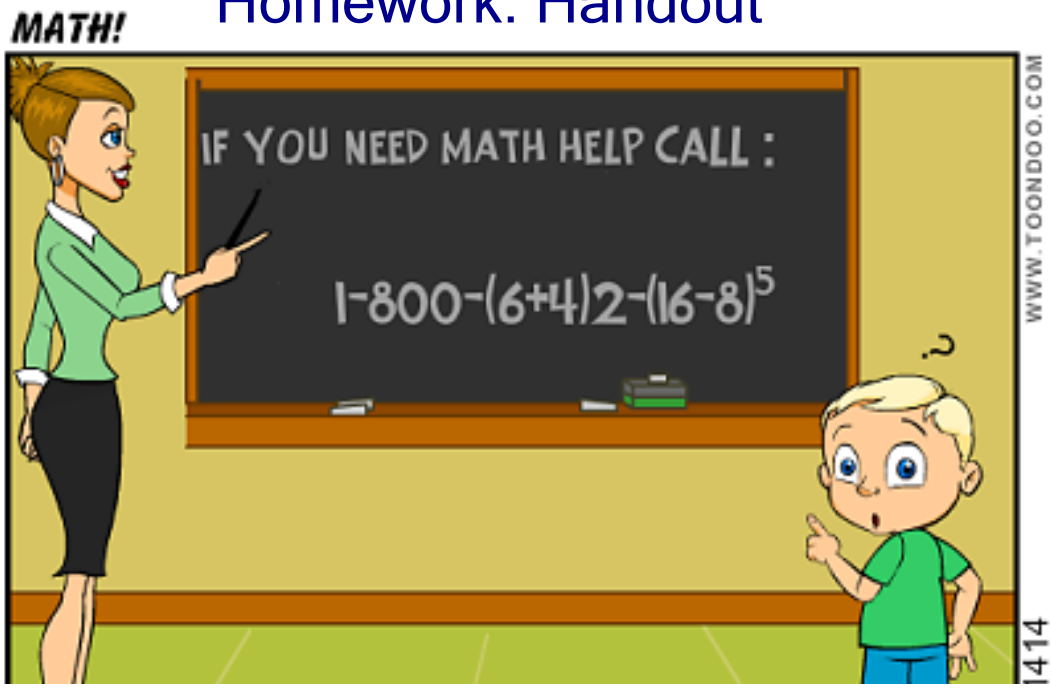
* Leave answers as fractions
- Improper fractions REDUCED

**ALWAYS, ALWAYS, ALWAYS**
**SHOW ALL WORK!**

Example 3: Evaluate each of the following.
Add all four answers to fill in the box in the middle.



## Homework: Handout




# Order Of Operations

# P E M D A S