

Add and Subtract Numbers in Standard Index Form

The PowerPoint contains the slides shown below and these give an animated presentation explaining how to evaluate addition and subtraction calculations involving standard index form. There are questions with answers.

Add and Subtract Numbers in Standard Index

Objective: Evaluate addition and subtraction calculations involving standard index form

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1

To add SIF numbers and give a SIF answer, we have to...

$$(6 \times 10^{-7}) + (4 \times 10^{-8})$$

→ 0.0000006 + 0.000004

Change into ordinary numbers

Add

→ 0.0000406

Change back into SIF

→ 4.06×10^{-5}

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2

We have to do the same for subtraction

$$(3 \times 10^7) - (9 \times 10^8)$$

→ 30 000 000 - 900 000

Change into ordinary numbers

Subtract

→ 29100000

Change back into SIF

→ 2.91×10^7

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3

Evaluate these giving the answer in SIF

- $4 \times 10^5 + 2 \times 10^4 = 4.2 \times 10^5$
- $3 \times 10^4 + 7 \times 10^3 = 3.7 \times 10^4$
- $3 \times 10^{-3} + 8 \times 10^{-5} = 3.08 \times 10^{-3}$
- $4.7 \times 10^{-5} + 3.3 \times 10^{-4} = 3.77 \times 10^{-4}$
- $6 \times 10^8 - 8 \times 10^6 = 5.92 \times 10^8$
- $4 \times 10^9 - 7 \times 10^8 = 3.3 \times 10^9$
- $6 \times 10^{-9} - 3 \times 10^{-8} = -2.4 \times 10^{-8}$
- $4.2 \times 10^{-8} - 1.3 \times 10^{-7} = -8.8 \times 10^{-8}$

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