

GCSE STANDARD FORM



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What is standard form?
b) How to express in standard form?
c) How to express standard form in
normal numbers
   Ordering Standard Forms
e) Standard form addition, substraction, multiplication and division?
     ixed problems
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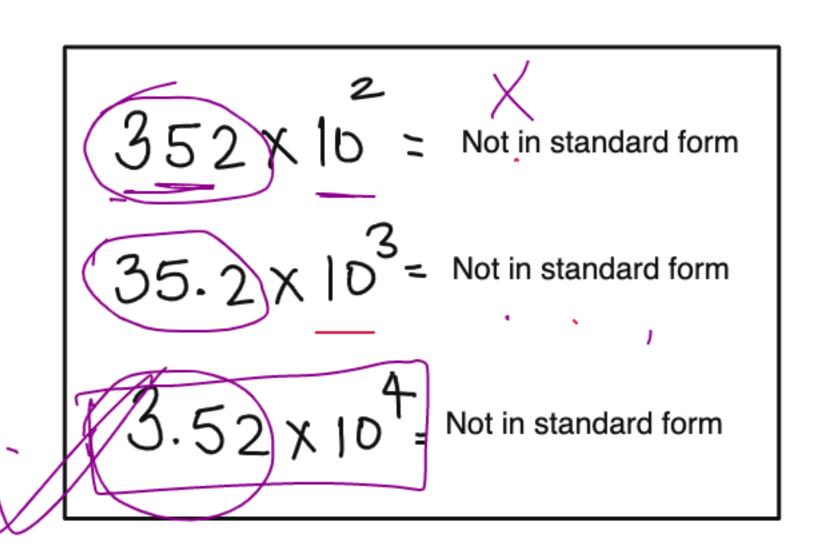
WHAT IS STANDARD FORM?



By Mahima Laroyia

$$n = \frac{(n)}{2}$$
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Standard forms are used to express the very big numbers or the small numbers in the form of power of 10.



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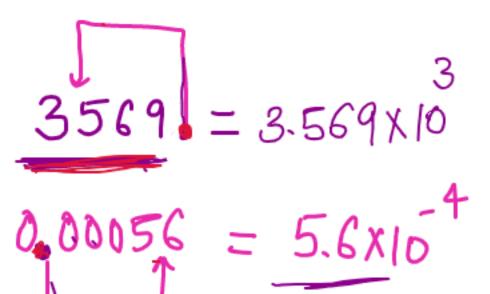


CONVERTING NUMBERS TO STANDARD FORM



Rule \

If the decimal is moved towards left then the power of 10 is raised to positive power to the number of places moved



Rule 2

If the decimal is moved towards right then the power of 10 is raised to the negative power to the number of placed moved.

$$35$$
 = 3.5×10^{1}
 2956 = 2.956×10^{3}

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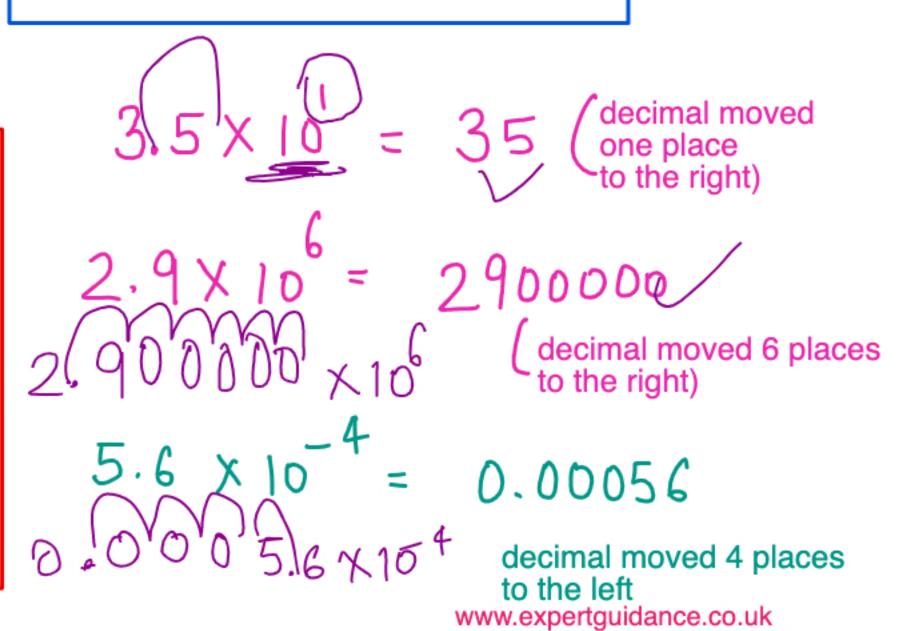


CONVERTING STANDARD FORM TO NORMAL NUMBERS



If the power of 10 is positive, then move the decimal to the right to the number of places as the power of 10.

If the power of 10 is negative, then move the decimal to the left to the number of places as the power of 10.



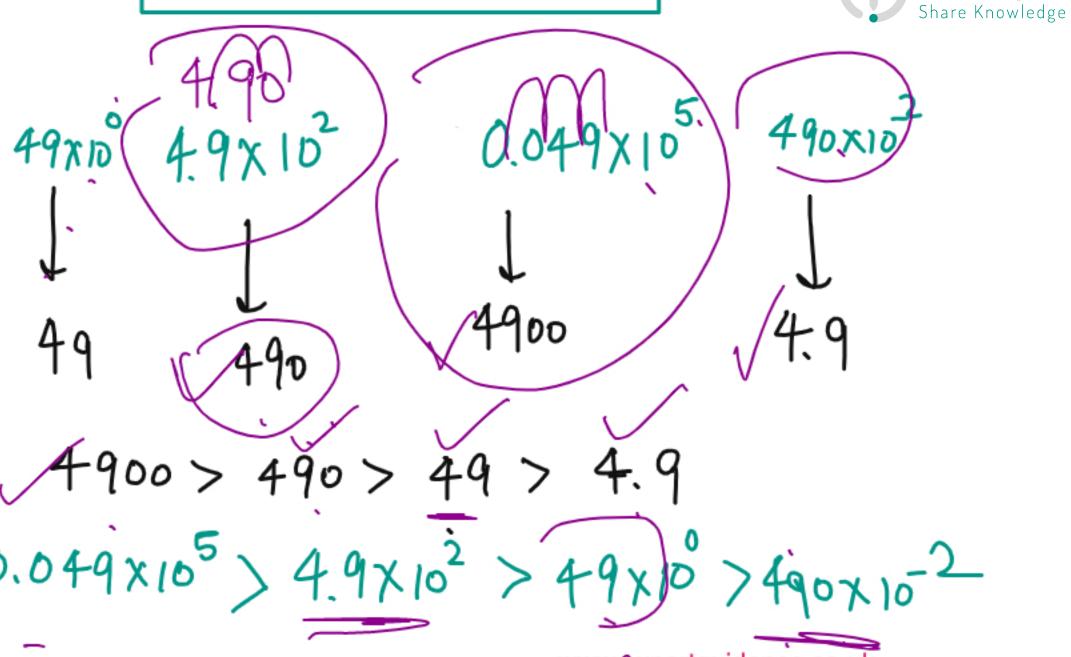
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Rule

Write the standard forms as normal numbers and then compare



ORDERING STANDARD FORMS

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BitPaper

PRACTICE QUESTIONS





PAPER 1

Answer all questions in this section.

1 Round off 65 768 correct to three significant figures.

A 657

C 65 700

B 658

D 65 800

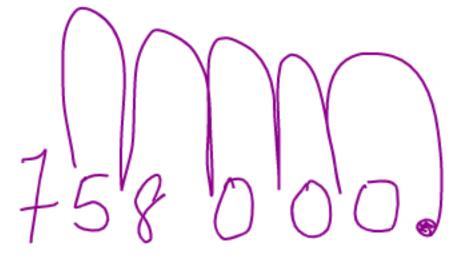
2 Express 758 000 in the standard form.

A 7.58x10

B 7.58x10⁻⁵

C 7.58x10⁵

D 3.06x10⁶



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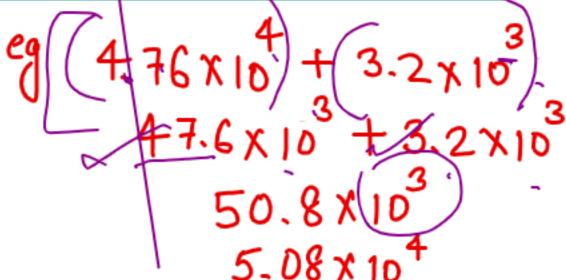
ADDING AND SUBTRACTING STANDARD FORM



Make the power of 10 the same

Add or substract the numbers

Express in standard forms



$$= (5.27 \times 10^{-3}) - (812 \times 10^{-4})$$

$$= (5.27 \times 10^{-3}) - (0.82 \times 10^{-3})$$

$$= (5.27 - 0.82) \times 10^{-3}$$

$$= (4.45 \times 10^{-3})$$

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MULTIPLYING AND DIVIDING STANDARD **FORM**



Rule

Multiply or divide the numbers

Use the Indices Law for the power of 10

$$\frac{2\times10^{6}}{4\times10^{3}}$$
 0.5×10

$$(2 \times 10) \div (4 \times 10)$$

$$(2 \div 4) \times 10^{6-3}$$

$$0.5 \times 10^{2}$$

$$5 \times 10^{2}$$

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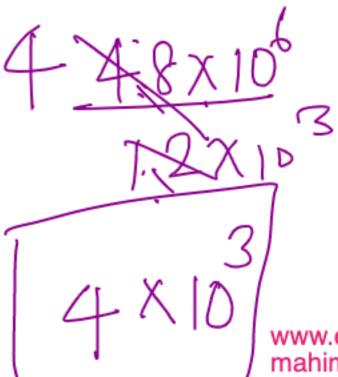
The weight of one box 5 X10
Calcuate the weight of 120 such boxes
and write the answer in the standard form

$$= 5 \times 10^{5} \times 120$$

$$= 600 \times 10^{5}$$

$$= 6 \times 10^{7}$$

The area of Sphere A is 48 × 10
The area of Sphere B is 1.2 × 10
How many times larger is A than B



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NEXT STEP





CHECK SPECIFICATION



EXAM QUESTIONS ON THE TOPIC



