

PATH TO SUCCESS

ON

INDICES AND STANDARD FORM
(WITH QUESTIONS AND ANSWERS)

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► Example 2

Simplify (a) 10^{-3} (b) $12x^7 \div 4a^3$ (c) $(1/4)^{-2}$

Solution

(a) $10^{-3} = 1/10^3 = 1/1000$

(b) $12a^7 \div 3a^3 = \underline{12 \times a \times a \times a \times a \times a \times a}$

$(3 \times a \times a)$

$4 \times (3 \times a \times a) \times a \times a \times a \times a \times a$

$(3 \times a \times a)$

$= 4 \times a \times a \times a \times a \times a \times a \times a = 4a^5$

(c) $(1/4)^{-2} = 1/(1/4)^2 = 1/(1/16) = 16$



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► 3. Simplify 0.000 006 3

[a] 6.3×10^{-6}

[b] 6.3×10^6

[c] 6.3×10^{-5}

[d] 6.3×10^{-7}

► 4. Solve $(12x^5 \times 3x^3)^0$

[a] 1

[b] 11

[c] $9x^3$

[d] $4x^4$

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► 13. Express 5^3 in standard form.

- [a] 15
- [b] 5^{-3}
- [c] 15
- [d] 125

► 14. Simplify $(2^4)^2$ in indices form.

- [a] 2^7
- [b] 2^2
- [c] 2^8
- [d] 2^9

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