Multiplication with indices

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BIRDMAS

↓

Indices – Powers
– Exponents.

$4^1 \times 4^1 \times 4^1 = 4^3$

$5 \times 5 = 25$

$5^2 = 25$

Eg 1 x^1 by $x^1 = x^2$

Note: Every letter and number can be written as a power of 1

Eg 1 x can be written as x^1

Eg2 x^2 by $x^1 = x^{2+1} = x^3$

When you multiply you add the powers

Eg3) $a^2 \times a^2 = a^4$

$a^{2+2} = a^4$

Eg 4) $y^5 \times y^3 = y^{5+3} = y^8$

Class work

Pg 178

Eg 5) $2a^4 \times 4a^1 = 8a^5$

$2 \times 4 = 8$

$a^{4+1} = a^5$

Q1 → 12.

Eg 6) $4 \times y \times y^2 \times 6 = 24y^3$

Q13 $2(x^2 + 4) + 3(2x^2 + 5)$

$2x^2 + 8 + 6x^2 + 15$

$+8x^2 + 23$

H/W Pg 178 Q 14 → 18