

# Multiplying Powers with the Same Base Bell Work

Simplify the following expression

1.  $b^3 \times b^5$

2.  $a^3 \times a^7$

3.  $6^2 \times 6$

4.  $3^2 \times 3^2$

5.  $a^7 \times a^{-5}$

6.  $2^4 \times 2^{-2}$

Evaluate the following using properties of power.

7.  $(3ab)(5a^2b^3)$

8.  $(4x^2y)(4x^{-5}y)$

9.  $(2xy)(3xy^{-2})(4x^{-1}y)$

10.  $(5g^3h)(3gh^{-2})(5^{-1}g)$

# Multiplying Powers with the Same Base Bell Work

Answer:

Simplify the following expression

1.  $b^3 \times b^5 = b^8$

3.  $6^2 \times 6 = 6^3 = 216$

5.  $a^7 \times a^{-5} = a^2$

2.  $a^3 \times a^7 = a^{10}$

4.  $3^2 \times 3^2 = 3^4 = 81$

6.  $2^4 \times 2^{-2} = 2^2$

Evaluate the following using properties of power.

7.  $(3ab)(5a^2b^3) = 15a^3b^4$

9.  $(2xy)(3xy^{-2})(4x^{-1}y) = 24x$

8.  $(4x^2y)(4x^{-5}y) = 4^2 y^2 (x^{-3}) = \frac{16y^2}{x^3}$

10.  $(5g^3h)(3gh^{-2})(5^{-1}g) = 15g^5(5^{-1}h^{-1}) = \frac{15g^5}{5h}$   
 $= \frac{3g^5}{h}$