

## INDICES

**DO NOT USE A CALCULATOR HERE - use rules you have learnt.**

1. Express  $2^3 \times 2^4$  as a single power of 2. ....

2. Express  $5^6 \div 5^4$  as a single power of 5. ....

3. Find the value of  $n$ , if :  $2^n \times 2^5 = 2^8$  .....

4. Simplify as a single power of 2;  $\frac{2^4 \times 2^8}{2^{15}}$  .....

5. Simplify as a single power of 2;  $\frac{64 \times 16}{8}$  Help:  $8 = 2^3$

.....

6. Express  $(4^3)^2$  as a single power of 4. ....

7. What is the value of  $3^0$ ? .....

8. What is the value of  $(2^3)^0$ ? .....

9. Simplify (a)  $x^2 y^3 \times xy^2$  (b)  $(3x^2)^2$

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10. Simplify (a)  $8x^2 y^3 \div 2x^2 y^{-1}$  (b)  $(2a^{-2}b)^2$

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