

Convert to exponent form.

1) $(x^2)^2$

2) $(x^5)^3$

3) $(x^4)^4$

4) $(x^2)^4$

5) $(x^4)^2$

6) $(x^4)^3$

7) $(x^2)^5$

8) $(x^3)^4$

9) $(x^3)^5$

Convert to exponent form.

1) $(x^2)^2$

Answer: x^4

2) $(x^5)^3$

Answer: x^{15}

3) $(x^4)^4$

Answer: x^{16}

4) $(x^2)^4$

Answer: x^8

5) $(x^4)^2$

Answer: x^8

6) $(x^4)^3$

Answer: x^{12}

7) $(x^2)^5$

Answer: x^{10}

8) $(x^3)^4$

Answer: x^{12}

9) $(x^3)^5$

Answer: x^{15}

Solution Steps

1) $(x^2)^2$

When you have an exponent expression raised to a power, you have to multiply the two exponents

$$(x^2)^2 = x^{(2*2)}$$

$$x^4$$

2) $(x^5)^3$

When you have an exponent expression raised to a power, you have to multiply the two exponents

$$(x^5)^3 = x^{(5*3)}$$

$$x^{15}$$

3) $(x^4)^4$

When you have an exponent expression raised to a power, you have to multiply the two exponents

$$(x^4)^4 = x^{(4*4)}$$

$$x^{16}$$

4) $(x^2)^4$

When you have an exponent expression raised to a power, you have to multiply the two exponents

$$(x^2)^4 = x^{(2*4)}$$

$$x^8$$

5) $(x^4)^2$

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$$(x^4)^2 = x^{(4*2)}$$

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When you have an exponent expression raised to a power, you have to multiply the two exponents

$$(x^4)^3 = x^{(4*3)}$$

$$x^{12}$$

7) $(x^2)^5$

When you have an exponent expression raised to a power, you have to multiply the two exponents

$$(x^2)^5 = x^{(2*5)}$$

$$x^{10}$$

8) $(x^3)^4$

When you have an exponent expression raised to a power, you have to multiply the two exponents

$$(x^3)^4 = x^{(3*4)}$$

$$x^{12}$$

9) $(x^3)^5$

When you have an exponent expression raised to a power, you have to multiply the two exponents

$$(x^3)^5 = x^{(3*5)}$$

$$x^{15}$$