



Math worksheet on 'Exponents - Power Law with Composite Base (Positives, Expanded to Exponent) (Level 1)'. Part of a broader unit on 'Exponents - Power Law - Intro'

Learn online: [app.mobius.academy/math/units/exponents\\_power\\_law\\_intro/](http://app.mobius.academy/math/units/exponents_power_law_intro/)

**1** Find the answer when these terms are multiplied

$$22^3 \cdot 22^3 \cdot 22^3 \cdot 22^3$$

|                        |                       |                          |                  |                       |
|------------------------|-----------------------|--------------------------|------------------|-----------------------|
| <b>a</b><br>$22^{120}$ | <b>b</b><br>$22^{14}$ | <b>c</b><br>$22^{1,200}$ | <b>d</b><br>$22$ | <b>e</b><br>$22^{12}$ |
|------------------------|-----------------------|--------------------------|------------------|-----------------------|

**2** Find the answer when these terms are multiplied

$$55^3 \cdot 55^3 \cdot 55^3$$

|                    |                    |                        |                    |
|--------------------|--------------------|------------------------|--------------------|
| <b>a</b><br>$55^8$ | <b>b</b><br>$55^9$ | <b>c</b><br>$55^{900}$ | <b>d</b><br>$55^0$ |
|--------------------|--------------------|------------------------|--------------------|

**3** Find the answer when these terms are multiplied

$$10^3 \cdot 10^3 \cdot 10^3 \cdot 10^3$$

|                       |                  |                    |                       |                    |
|-----------------------|------------------|--------------------|-----------------------|--------------------|
| <b>a</b><br>$10^{14}$ | <b>b</b><br>$10$ | <b>c</b><br>$10^7$ | <b>d</b><br>$10^{12}$ | <b>e</b><br>$10^0$ |
|-----------------------|------------------|--------------------|-----------------------|--------------------|

**4** Find the answer when these terms are multiplied

$$35^3 \cdot 35^3 \cdot 35^3$$

|                    |                       |                    |                    |
|--------------------|-----------------------|--------------------|--------------------|
| <b>a</b><br>$35^6$ | <b>b</b><br>$35^{90}$ | <b>c</b><br>$35^7$ | <b>d</b><br>$35^9$ |
|--------------------|-----------------------|--------------------|--------------------|

**5** Find the answer when these terms are multiplied

$$49^2 \cdot 49^2 \cdot 49^2 \cdot 49^2$$

|                    |                    |                    |
|--------------------|--------------------|--------------------|
| <b>a</b><br>$49^7$ | <b>b</b><br>$49^6$ | <b>c</b><br>$49^8$ |
|--------------------|--------------------|--------------------|

**6** Find the answer when these terms are multiplied

$$15^2 \cdot 15^2 \cdot 15^2 \cdot 15^2$$

|                    |                    |                    |                       |
|--------------------|--------------------|--------------------|-----------------------|
| <b>a</b><br>$15^7$ | <b>b</b><br>$15^8$ | <b>c</b><br>$15^9$ | <b>d</b><br>$15^{80}$ |
|--------------------|--------------------|--------------------|-----------------------|

**7** Find the answer when these terms are multiplied

$$9^2 \cdot 9^2 \cdot 9^2$$

|                       |                      |                   |                   |                   |
|-----------------------|----------------------|-------------------|-------------------|-------------------|
| <b>a</b><br>$9^{600}$ | <b>b</b><br>$9^{60}$ | <b>c</b><br>$9^7$ | <b>d</b><br>$9^5$ | <b>e</b><br>$9^6$ |
|-----------------------|----------------------|-------------------|-------------------|-------------------|