



חוקי חזקות – תרגילים ופתרונות

1	$2^3 \cdot 2^5 =$	13	$(2m)^4 =$
2	$4^5 \cdot \underline{\quad} = 4^{11}$	14	$2^{-1} =$
3	$3^2 \cdot 3 \cdot 3^7 =$	15	$6^{-3} =$
4	$x^4 \cdot x^{12} =$	16	$\frac{1}{x^3} =$
5	$\frac{2^7}{2^3} =$	17	$2^{\frac{1}{2}} =$
6	$\frac{8^5}{8^{\square}} = 8^2$	18	$8^{\frac{1}{3}} =$
7	$\frac{x^{11}}{x^4} =$	19	$5^0 =$
8	$\frac{x^3 \cdot x^4}{x^2} =$	20	$z^1 =$
9	$(6^3)^4 =$	21	$\left(\frac{2}{7}\right)^5 =$
10	$(5^{10})^2 =$	22	$\left(\frac{x^3}{z^4}\right)^2 =$
11	$(2^{\square})^7 = 2^{21}$	23	$\frac{3x^5 \cdot (2y)^2 \cdot z^7}{12z \cdot (x^2)^3 \cdot y^2 \cdot z^6}$
12	$(x^6)^3 =$	24	$\frac{4x^2 \cdot y^8 (z^2)^3}{12x \cdot y^7 \cdot y^3 \cdot z^5} =$



**תשובות:**

$$x^{18} (12 \cdot 2^3 (11 \cdot 5^{20} (10 \cdot 6^{12} (9 \cdot x^5 (8 \cdot x^7 (7 \cdot 8^3 (6 \cdot 2^4 (5 \cdot x^{16} (4 \cdot 3^{10} (3 \cdot 4^6 (2 \cdot 2^8 (1$$

$$\frac{x^6}{z^8} (22 \cdot \frac{2^5}{7^5} (21 \cdot z (20 \cdot 1 (19 \cdot \sqrt[3]{8^1} (18 \cdot \sqrt[2]{2^1} (17 \cdot x^{-3} (16 \cdot \frac{1}{6^3} = \frac{1}{216} (15 \cdot \frac{1}{2} (14 \cdot 16m^4 (13$$

$$\frac{4x^2 y^8 z^6}{12xy^{10} z^5} = \frac{xz}{3y^2} (24 \cdot \frac{3x^5 \cdot 4y^2 \cdot z^7}{12z^7 \cdot x^6 \cdot y^2} = \frac{1}{x} (23$$