Nome: Giulia Ventura Favaro n° 17 – 1DS

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① a) $3^4 = 3.3.3.3 =$
b) $(-2)^3 = -2.-2.-2 = -8$
c) $(-2)^6 = -2.-2.-2.-2.-2.-2 = 64$
d) $0^5 = 0$
e) $5^0 = 1$
f) $(\sqrt{2})^2 = 2$
g) $(\sqrt{7})^3 = 7\sqrt{7}$
h) $6^{-2} = \left(\frac{1}{6}\right)^2 = \frac{1}{36}$
i) $\left(-\frac{3}{2}\right)^{-1} = \frac{2}{3} = -\frac{2}{3}$

⑪ a) $2187 = 3^7$
b) $\frac{1}{9} = 3^{-2}$
c) $1 = 3^0$
d) $\sqrt[5]{81} = 3^{\frac{4}{5}}$
e) $\frac{\sqrt{3}}{3} = \frac{3^{\frac{1}{2}}}{3} \rightarrow 3^{\frac{1}{2}-1} \rightarrow 3^{-\frac{1}{2}}$
f) $27^5 = (3^3)^5 \rightarrow 3^{15}$

⑬ a) $500 = 5.10^2$
b) $0,0006 = 6.10^{-4}$
c) $0,000000025 = 2,5.10^{-7}$
d) $0,02 = 2.10^{-2}$
e) $0,034 = 3,4.10^{-2}$
f) $0,8 = 8\ 10^{-1}$
g) $20,39 = 2,039.10^1$
h) $0,000008 = 8.10^{-6}$

1- a) $3^4 = 81$

i) $48000 = 4,8.10^4$
j) $7000000000 = 7\ 10^9$
k) $923,1 = 9,231.10^2$
l) $40400 = 4,04.10^4$

⑰ a- $\sqrt{8} = 2\sqrt{2}$
b- $\sqrt[3]{16} = 2\sqrt[3]{2}$
c) $\sqrt{60} = 2\sqrt{15}$
d) $\sqrt{200} = \frac{1}{2}$

⑲ a) $\sqrt{2}.\sqrt{5} = \sqrt{10}$
b) $\frac{\sqrt{5}}{\sqrt{2}} = \sqrt{\frac{5}{2}}$
c) $\sqrt{\sqrt[3]{5}} = \sqrt[6]{5}$
d) $\sqrt{2\sqrt{3}} = \sqrt[4]{12}$
e) $\sqrt[3]{2}.\sqrt[4]{2} = \sqrt[12]{128}$
f) $\sqrt{2}.\sqrt[3]{2}.\sqrt[4]{2} = \sqrt[12]{2^{13}}$

㉗ a) $\sqrt[3]{625} + \sqrt[3]{40} - \sqrt[3]{135} =$
$5\sqrt[3]{5} + 2\sqrt[3]{5} - 3\sqrt[3]{5} = 4\sqrt[3]{5}$

b) $\sqrt{8}.\sqrt{6} + \sqrt{21}.\sqrt{7} =$
$\sqrt{48} + \sqrt{147}$
$4\sqrt{3} + 7\sqrt{3} = 11\sqrt{3}$

c) $\sqrt{\sqrt[3]{128}} + \sqrt[3]{\sqrt{1458}} =$
$\sqrt[6]{128} + \sqrt[6]{1458}$
$2\sqrt[6]{2} + 3\sqrt[6]{2} = 5\sqrt[6]{2}$

d) $\sqrt{6}(\sqrt{3} + \sqrt{2} - \sqrt{18}) =$
$\sqrt{6}(\sqrt{3} + \sqrt{2} - 3\sqrt{2})$
$\sqrt{6}(\sqrt{3} - 2\sqrt{2})$
$\sqrt{18} - 2\sqrt{12}$
$3\sqrt{2} - 4\sqrt{3}$