

Risolvere le seguenti equazioni
 esponenziali

$$1) 3^x = 81$$

$$2) 5^{2x} = \frac{1}{625}$$

$$3) 2^{\frac{x}{x^2+x}} = \sqrt{2}$$

$$4) 3^x = 0$$

$$5) 3^{x-1} = 1$$

$$6) 10^x = 10$$

$$7) \left(\frac{2}{3}\right)^{x^2-3x} = \left(\frac{3}{2}\right)^{2(x-1)}$$

$$8) 3^{\sqrt{x}} = 81$$

$$9) (10^x)^2 \cdot 1000 = 10^{5-x}$$

$$10) \frac{125}{5^x} = 5^{2x-3}$$

$$11) 7^{x^2-x-12} = 1$$

$$12) 27 \cdot 9^x = \sqrt{9}$$

$$13) 4^{\sqrt{x}} = \sqrt[3]{4}$$

$$14) 5 \cdot 7^{2x} + 5 \cdot 7^x - 10 = 0$$

$$15) 3 \cdot 3^{2x} - 10 \cdot 3^x + 3 = 0$$

$$16) 7^{2x-5} = \sqrt{7^{12}}$$

$$17) 8^{x+1} - 8^x - 8^{x-1} = 55$$

$$18) 2^{x-1} + 2^{x+2} = \frac{5}{4}$$

$$19) a^{\sqrt{x+1}} \cdot a = \sqrt[3]{a^5}$$

$$20) \frac{\sqrt[3]{a^2} \cdot a^{4x}}{a^3} = a^6$$

$$21) 5(5^x)^{x+2} = 1$$

$$22) 10^x - 100 = 10^{x+1}$$

$$23) \sqrt[3]{5^{x+2}} = \sqrt{\frac{25}{5^{3x}}}$$

$$24) 3 \cdot 3^{4x} + 3^{2x} = -\frac{1}{36}$$

$$25) (10^{4x})^5 = \left(\frac{1}{100}\right)^2$$

$$26) \sqrt[5]{10^{4x}} = \sqrt[3]{10^{-4}}$$

$$27) 16^{\frac{x+1}{2}} = \left(\frac{1}{4}\right)^{x-1}$$

$$28) \left(\frac{2}{5}\right)^{\frac{x}{2}} = \sqrt{\frac{5}{2}}$$

$$29) \sqrt[3]{\sqrt[3]{5^{7x}}} = 25 \cdot 5^x$$

$$30) 2^{\frac{7x}{64}} = \sqrt[4]{32}$$