**Простейшие показательные уравнения**

**Образец выполнения Задания 1.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| $$2^{x}=8$$$$2^{x}=2^{3}$$**Ответ: x=3** | $$3^{x}=81$$$$3^{x}=3^{4}$$**Ответ: x=4** | $$10^{x}=100$$$$10^{x}=10^{2}$$**Ответ: x=2** | $$5^{x}=1$$$$5^{x}=5^{0}$$**Ответ: x=0** | $$6^{x}=6$$$$6^{x}=6^{1}$$**Ответ: x=1** |

**Задание 1. Решить уравнения:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| $$2^{x}=4$$ | $$3^{x}=9$$ | $$4^{x}=1$$ | $$5^{x}=5$$ | $$10^{x}=10$$ |
| $$5^{x}=25$$ | $$3^{x}=1$$ | $$2^{x}=2$$ | $$4^{x}=16$$ | $$2^{x}=32$$ |
| $$3^{x}=3$$ | $$2^{x}=64$$ | $$10^{x}=1000$$ | $$2^{x}=1$$ | $$7^{x}=7$$ |
| $$10^{x}=1$$ | $$4^{x}=4$$ | $$2^{x}=16$$ | $$3^{x}=27$$ | $$8^{x}=1$$ |

**Образец выполнения Задания 2.**

|  |  |  |  |
| --- | --- | --- | --- |
| $$2^{x}=\frac{1}{2}$$$$2^{x}=\frac{1}{2^{1}}$$$$2^{x}=2^{-1}$$**Ответ:** $x=-1$ | $$3^{x}=\frac{1}{9}$$$$3^{x}=\frac{1}{3^{2}}$$$$3^{x}=3^{-2}$$**Ответ:** $x=-2$ | $$4^{x}=\frac{1}{64}$$$$4^{x}=\frac{1}{4^{3}}$$$$4^{x}=4^{-3}$$**Ответ:** $x=-3$ | $$10^{x}=\frac{1}{100}$$$$10^{x}=\frac{1}{10^{2}}$$$$10^{x}=10^{-2}$$**Ответ:** $x=-2$ |

**Задание 2. Решить уравнения**

|  |  |  |  |
| --- | --- | --- | --- |
| $$2^{x}=\frac{1}{4}$$ | $$3^{x}=\frac{1}{3}$$ | $$4^{x}=\frac{1}{16}$$ | $$5^{x}=\frac{1}{5}$$ |
| $$3^{x}=\frac{1}{27}$$ | $$2^{x}=\frac{1}{8}$$ | $$6^{x}=\frac{1}{6}$$ | $$10^{x}=\frac{1}{10}$$ |
| $$2^{x}=\frac{1}{16}$$ | $$3^{x}=\frac{1}{81}$$ | $$5^{x}=\frac{1}{25}$$ | $$8^{x}=\frac{1}{8}$$ |