

## COMPITI 2 – EQUAZIONI LOGARITMICHE, FUNZIONI ESPONENZIALI E LOGARITMICHE

### Compito 2.1 – equazioni logaritmiche 1/2

Risolvi le equazioni:

- |                                                    |                    |
|----------------------------------------------------|--------------------|
| 1. $\log_{\frac{3}{2}} x = -3$                     | $x = \frac{8}{27}$ |
| 2. $\log_5(3x + 1) = 2$                            | $x = 8$            |
| 3. $\log_{\frac{1}{2}} \log_3(2x - 3) = -2$        | $x = 42$           |
| 4. $\log_{\frac{1}{8}} \log_5(2x - 5) = 0$         | $x = 5$            |
| 5. $\log_3 x + \log_3(2x + 5) = 1$                 | $x = \frac{1}{2}$  |
| 6. $\log_2(3x - 1) - \log_2(x - 3) = 2$            | $x = 11$           |
| 7. $\log_2(2x + 3) - \log_2(x - 1) = 1 + \log_2 3$ | $x = \frac{9}{4}$  |

### Compito 2.2 – equazioni logaritmiche 2/2

Risolvi le equazioni:

- |                                                       |                                  |
|-------------------------------------------------------|----------------------------------|
| 1. $\log^2 x - 2 \log x - 8 = 0$                      | $x = 10^4, x = 10^{-2}$          |
| 2. $2(\log_5 x)^2 - 3 \log_5 x = 2$                   | $x = 25, x = \frac{\sqrt{5}}{5}$ |
| 3. $\log_2 x + \log_8 x + \log_{16} x = \frac{19}{6}$ | $x = 4$                          |
| 4. $\log_2 x \cdot \log_{16} x = 4$                   | $x = 16, x = \frac{1}{16}$       |
| 5. $\log_5 x - 2 \log_x 5 = 1$                        | $x = 25, x = \frac{1}{5}$        |
| 6. $2 \log_2 x - 4 \log_x 2 + 7 = 0$                  | $x = \sqrt{2}, x = \frac{1}{16}$ |