**Task card 1** Properties of Logarithms

Fill in the blank: $\log_5(\sqrt[y]{125}) = \log_5(y) - ___$

**Task card 2** Properties of Logarithms

Evaluate: $\log_4(2) + \log_4(8)$

**Task card 3** Properties of Logarithms

Evaluate: $\log_5(175) - \log_5(7)$

**Task card 4** Properties of Logarithms

Fill in the blank: $\log_5(x^8) = ___ \cdot \log_5(x)$

**Task card 5** Properties of Logarithms

Evaluate: 3log_2(4)

**Task card 6** Properties of Logarithms

Evaluate: log(2) + log(50)

**Task card 7** Properties of Logarithms

Evaluate: $\log_3(21) - \log_3(7)$

**Task card 8** Properties of Logarithms

Fill in the blank: $\log_3(m^9) = ___ \cdot \log_3(m)$

**Task card 9** Properties of Logarithms

Fill in the blank: $\log_5(m^9) = ___ \cdot \log_5(m)$

**Task card 10** Properties of Logarithms

Evaluate: $\log_{12}(8) + \log_{12}(18)$

**Task card 11** Properties of Logarithms

Evaluate: $\log_3(189) - \log_3(7)$

**Task card 12** Properties of Logarithms

Fill in the blank: $\log_5(125x) = ___ + \log_5(x)$

**Task card 13** Properties of Logarithms

Evaluate: $3\log_3(3)$

**Task card 14** Properties of Logarithms

Evaluate: $\log(4) + \log(250)$

**Task card 15** Properties of Logarithms

Evaluate: $\log_2(22) - \log_2(11)$

**Task card 16** Properties of Logarithms

Fill in the blank: $\log_2(\sqrt{16}) = \log_2(x) - ___$

**Task card 17** Properties of Logarithms

Fill in the blank: $\log_3(y^3) = ___ \cdot \log_3(y)$

**Task card 18** Properties of Logarithms

Evaluate: $\log_{12}(2) + \log_{12}(6)$

**Task card 19** Properties of Logarithms

Write as a single logarithm: $\log_2(x) + \log_2(11)$. (Write the number first, like $\log_2(3x)$.)

**Task card 20** Properties of Logarithms

Evaluate: $\log_2(14) - \log_2(7)$

**Task card 21** Properties of Logarithms

Use log(2) ≈ 0.301 and log(3) ≈ 0.477 to find log(9) without a calculator.

**Task card 22** Properties of Logarithms

Evaluate: 4log_3(9)

**Task card 23** Properties of Logarithms

Write as a single logarithm: 2log_7(x) + $\log_7(3)$. (Write the number first, like $\log_2(3x^2)$.)

**Task card 24** Properties of Logarithms

Evaluate: $\log_4(8) + \log_4(8)$

# Properties of Logarithms Task Cards

Recording sheet · Grade 11 · Use the properties of logarithms.

Name: _____ Date: _____

Scan to check your answers

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 |

# Properties of Logarithms Task Cards: Answer Key

Grade 11 · Easy

The answers online

| | | |
|---|---|---|
| **1.** 3 | **2.** 2 | **3.** 2 |
| **4.** 8 | **5.** 6 | **6.** 2 |
| **7.** 1 | **8.** 9 | **9.** 9 |
| **10.** 2 | **11.** 3 | **12.** 3 |
| **13.** 3 | **14.** 3 | **15.** 1 |
| **16.** 4 | **17.** 3 | **18.** 1 |
| **19.** $\log_2(11x)$ | **20.** 1 | **21.** 0.954 |
| **22.** 8 | **23.** $\log_7(3x^2)$ | **24.** 3 |