**Task card 1** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_7(x + 9)$.

**Task card 2** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_4(3x + 1)$.

**Task card 3** Domain of Logarithmic Functions

Find the domain of $f(x) = 4\log_2(8 - 2x) + 7$.

**Task card 4** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_3(-3x - 7)$.

**Task card 5** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_3(x - 1)$.

**Task card 6** Domain of Logarithmic Functions

Find the domain of $f(x) = 5\log_7(2x + 9) + 1$.

**Task card 7** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_7(-x - 2)$.

**Task card 8** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_2(4x - 11)$.

**Task card 9** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_4(-3x - 15)$.

**Task card 10** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_2(10 - 3x)$.

**Task card 11** Domain of Logarithmic Functions

Find the domain of f(x) = 3log_4(2x + 16) - 6.

**Task card 12** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_3(-4x - 2)$.

**Task card 13** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_7(14 - 2x)$.

**Task card 14** Domain of Logarithmic Functions

Find the domain of $f(x) = 5\log_4(-2x - 9) - 2$.

**Task card 15** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_2(4x - 28)$.

**Task card 16** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_7(6 - 4x)$.

**Task card 17** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_3(x + 5)$.

**Task card 18** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_3(4x - 3)$.

**Task card 19** Domain of Logarithmic Functions

Find the domain of $f(x) = 5\log_2(-3x - 27) + 6$.

**Task card 20** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_4(2x + 9)$.

**Task card 21** Domain of Logarithmic Functions

Find the domain of $f(x) = \log_7(5x + 30)$.

**Task card 22** Domain of Logarithmic Functions

Find the domain of $f(x) = 3\log_7(4x - 9) - 4$.

**Task card 23** Domain of Logarithmic Functions

Find the domain of $f(x) = \log(5x)$.

**Task card 24** Domain of Logarithmic Functions

Find the domain of $f(x) = \ln(-2x - 5)$.

# Domain of Logarithmic Functions Task Cards

Recording sheet · Grade 11 · Write each domain as an inequality, like x > 3, x < -2 or x > 5/2.

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 |

# Domain of Logarithmic Functions Task Cards: Answer Key

Grade 11 · Hard

The answers online

| | | |
|---|---|---|
| **1.** $x > -9$ | **2.** $x > -\frac{1}{3}$ | **3.** $x < 4$ |
| **4.** $x < -\frac{7}{3}$ | **5.** $x > 1$ | **6.** $x > -\frac{9}{2}$ |
| **7.** $x < -2$ | **8.** $x > \frac{11}{4}$ | **9.** $x < -5$ |
| **10.** $x < \frac{10}{3}$ | **11.** $x > -8$ | **12.** $x < -\frac{1}{2}$ |
| **13.** $x < 7$ | **14.** $x < -\frac{9}{2}$ | **15.** $x > 7$ |
| **16.** $x < \frac{3}{2}$ | **17.** $x > -5$ | **18.** $x > \frac{3}{4}$ |
| **19.** $x < -9$ | **20.** $x > -\frac{9}{2}$ | **21.** $x > -6$ |
| **22.** $x > \frac{9}{4}$ | **23.** $x > 0$ | **24.** $x < -\frac{5}{2}$ |