

## MATEMATIKA 1



- A-

3.TEST

Razred: \_\_\_\_\_

Ime in Priimek: \_\_\_\_\_

Datum: \_\_\_\_\_

Kriterij:

0-14 (1) 15-18 (2) 19-22 (3) 23- 26(4) 27-30(5)

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### 1. Poenostavi izraze:

$$\bullet \left( \frac{x}{x+3} - \frac{x^2}{x^2+x-6} \right) \div \left( \frac{x}{x+3} - \frac{x^2}{x^2-9} \right) =$$

$$\bullet \frac{(a^2 - 12a + 32)}{(a^2 + 5a - 36)} \cdot \frac{(a^3 + 6a^2 - 27a)}{(a^3 - 8a^2 - 9a + 72)} =$$

$$\bullet \frac{\frac{a-7}{b} - \frac{b}{a-7}}{\frac{1}{b} - \frac{1}{a-7}} =$$

$$\bullet (2a^3b^{-4})^{-2} \cdot (-a^{-3}b^{-3})^2 =$$

$$\bullet \left( 1 - \frac{1}{1 + \frac{1}{1 + \frac{1}{2}}} \right)^{-2} =$$

$$\bullet \left( \frac{1.27}{7} + \frac{9}{11} \right)^3 - 2^{-2} =$$

$$\bullet 1 - 2x^{-1} + 5(x-3)^{-1} + \left( \frac{3-x}{1-12x^{-1}} \right)^{-1} =$$

$$\bullet \frac{2^x - 2^{-x}}{4^x - 1} \cdot 6^x - 3^x$$

2. Zmešali smo 2 litra 85% alkohola, 5 litrov 62% alkohola in 3 litre vode.  
Koliko odstotno mešanico smo dobili?

## MATEMATIKA 1



- B-

3.TEST

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### 1. Poenostavi izraze :

- $\frac{z^3 + 2z^2 - 15z}{z^3 - 8z^2 - 9z + 72} \div \frac{z^3 + 125}{z^2 - 5z - 24} =$
- $\frac{(2a + 10)}{(a^3 - 11a^2 + 30a)} \cdot \frac{(a^3 - 36a)}{(a + 6)} =$
- $\frac{x - \frac{x^2 + 1}{2x - 1}}{1 + \frac{3x + 1}{1 - 2x}} =$
- $(5^{-1} - 2a^{-1} + 5a^{-2}) \cdot \frac{5a^2 + 10a}{a - 5} \cdot (a - 25a^{-1}) =$
- $\frac{1}{a^{n-3}} - \frac{a^2 - 1}{a^{n+1}} - \frac{a^2 - 1}{a^{n-1}} =$
- $(-3a^4b^{-2})^3 \cdot (a^2b^{-5})^{-3} =$
- $\left(1.\overline{27} \div 7 + \frac{9}{11}\right)^3 - 2^{-2} =$
- $\frac{a^7}{(a+b)^7} - \frac{2a^6}{(a+b)^6} + \frac{a^5}{(a+b)^5} - \frac{a^5b^2}{(a+b)^7} =$

2. Bencin je neopravičeno poražil za 25%, zato so morali vrniti cene na prvotno raven. Koliko % je bila pocenitev?