

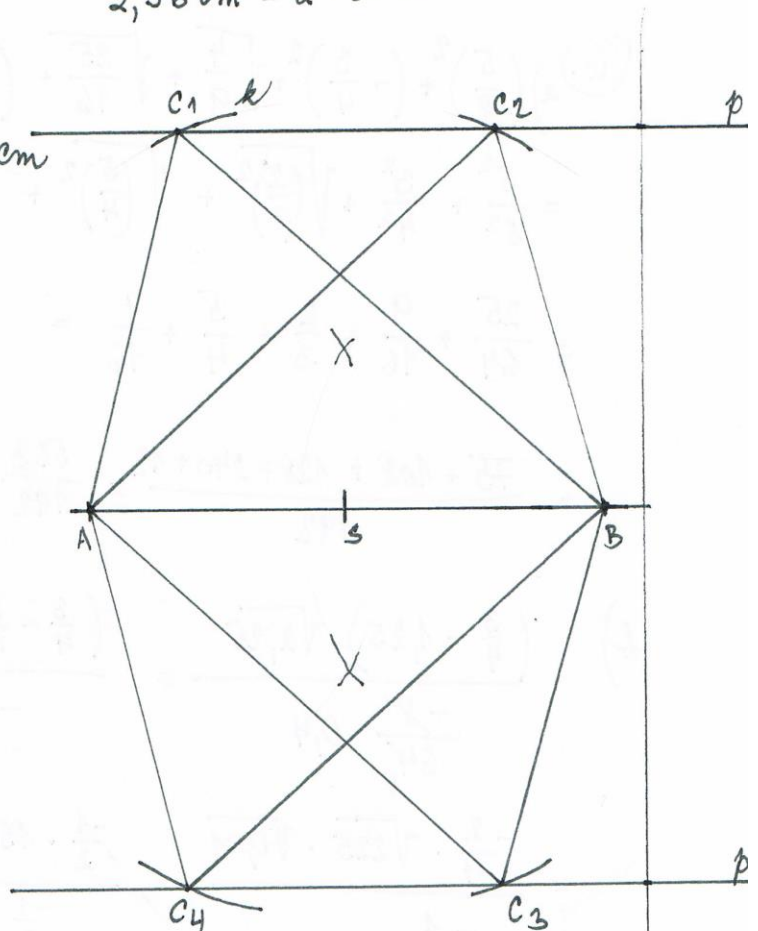
Řešení! 31.3.

1. $\frac{x^2-2x+1}{x^2-9} \cdot \frac{x^2-6x+9}{x^2-1} = \frac{(x-1)^2}{(x+3)(x-3)} \cdot \frac{(x-3)^2}{(x+1)(x-1)} = \frac{(x-1)(x-3)}{(x+3)(x+1)} = \frac{x^2-4x+3}{x^2+4x+3}$
 $x \neq -3 \quad x \neq 3 \quad x \neq -1 \quad x \neq 1$

2. $5,2 \text{ kg} = 5200 \text{ g}$
 $3,7 \text{ dm}^3 = 3700 \text{ cm}^3$
 $632 \text{ cm} = 6320 \text{ mm}$
 $3,2 \text{ t} = 3200 \text{ kg}$

$2846 \text{ dm}^2 = 28,46 \text{ m}^2$
 $63 \text{ cm} = 0,63 \text{ m}$
 $32 \text{ dm}^2 = 320000 \text{ mm}^2$
 $2,56 \text{ cm}^3 = 2560 \text{ mm}^3$

3. 1) AB; $|AB| = 7,5 \text{ cm}$
 2) p i $p \parallel AB$ ve vzdal. $5,5 \text{ cm}$
 3) S ; $|AS| = |SB|$
 4) k ; $k(S; r=6 \text{ cm})$
 5) C ; $C \in k \cap p$
 6) $\triangle ABC$
 4 řešení!



4. $x \text{ m} \dots \text{ po } 50 \text{ Kč} \dots 50x$
 $y \text{ m} \dots \text{ po } 70 \text{ Kč} \dots 70y$
 $\hline 1540$

$50x + 70y = 1540$
 $x = \frac{1540 - 70y}{50}$
 $x = \frac{10 \cdot (154 - 7y)}{50}$
 $x = \frac{154 - 7y}{5}$

x je celé číslo

$\frac{154 - 7y}{5} = \frac{7 \cdot (22 - y)}{5} \Rightarrow$

$22 - y$ musí být dělitelné pěti

- $22 - y \mid 5$ pro $22, (22 - 22 = 0)$
 $17 (22 - 17 = 5)$
 $12 (22 - 12 = 10)$
 $7 (22 - 7 = 15)$
 $2 (22 - 2 = 20)$

y	22	17	12	7	2
x	0	7	14	21	28

$x = \frac{7 \cdot (22 - 22)}{5} = 0$

$x = \frac{7 \cdot (22 - 17)}{5} = 7$

5. $d = 8 \text{ cm}$ $+ 0,25\%$
 $r = 4 \text{ cm}$
 $v = 15 \text{ cm}$

$$V = \frac{\pi \cdot r^2 \cdot v}{3}$$

$$V = \frac{3,14 \cdot 4^2 \cdot 15}{3}$$

$$V = 251,2 \text{ ml}$$

$$v = 251,2 \cdot 1,25 = 314 \text{ ml}$$

100% korn. + 25% kopeč.
 $\downarrow \quad \uparrow$
 $1 \quad + \quad 0,25$
 $1,25$

6. a) $\left(\frac{5}{8}\right)^2 + \left(-\frac{3}{4}\right)^2 + \sqrt{\frac{4}{9}} + \sqrt{\frac{25}{16}} + \left(-\frac{1}{4}\right)^2 =$

$$= \frac{5^2}{8^2} + \frac{3^2}{4^2} + \sqrt{\left(\frac{2}{3}\right)^2} + \sqrt{\left(\frac{5}{4}\right)^2} + \frac{1}{4^2} =$$

$$= \frac{25}{64} + \frac{9}{16} + \frac{2}{3} + \frac{5}{4} + \frac{1}{16} =$$

$$= \frac{75 + 108 + 128 + 240 + 12}{192} = \frac{563}{192}$$

$$4 = 2^2$$

$$64 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 2^6$$

$$16 = 2 \cdot 2 \cdot 2 \cdot 2 = 2^4$$

$$m(3, 4, 16, 64) = 3 \cdot 2^6 = 3 \cdot 64 = 192$$

b) $\frac{\left(\frac{3}{4} - 1,25\right) \cdot \sqrt{2,25}}{\frac{-8}{64} \cdot 0,4} = \frac{\left(\frac{3}{4} - \frac{5}{4}\right) \cdot \sqrt{225 \cdot 0,01}}{-\frac{1}{8} \cdot \frac{4^1}{10}} =$

$$= \frac{-\frac{2}{4} \cdot \sqrt{225} \cdot \sqrt{0,01}}{-\frac{1}{20}} = \frac{-\frac{1}{2} \cdot 15 \cdot 0,1}{-\frac{1}{20}} = \frac{-\frac{1}{2} \cdot \frac{15}{10^2}}{-\frac{1}{20}} = \frac{-3}{4} \cdot \frac{-20^5}{1} = 15$$

Brouci, ja' se vic rozepisuju, abyste lepe pochopili. Na prijimackach kratši postup. Nikdo nema' problem se G? Mocniny, odmocniny - vzorce?