

1. Rokning

a) Hvussu stór verður rokningin?

40 stk. Perlur	á	20	kr	=	800,00 kr
80 stk. Dynamitti	á	4	kr	=	320,00 kr
1 stk. Dekningi	á	500	kr	=	500,00 kr
1 stk. Arbeiðsløn	á	12.000	kr	=	12.000,00 kr

Samlað = 13.620,00 kr

b) Tað verður latið 5% í avslátti, hvussu stór verður rokningin?

Dømi 1: $\frac{13.620 \text{ kr} \cdot 5\%}{100\%}$ = 681,00 kr

$13.620 \text{ kr} - 681 \text{ kr}$ = 12.939,00 kr

Dømi 2: $100\% - 5\%$ = 95 %

$\frac{13.620 \text{ kr} \cdot 95\%}{100\%}$ = 12.939,00 kr

c) Nú skal gjaldast 25% í MVG, hvussu stór verður rokningin?

$12.939 \text{ kr} \cdot 1,25$ = 16.173,75 kr

2. K-skipan

- a) Tekna eina krossskipan, har eindin á x- og y-ásanum eru 1 cm.
- b) Tekna í somu krossskipan linjurnar:

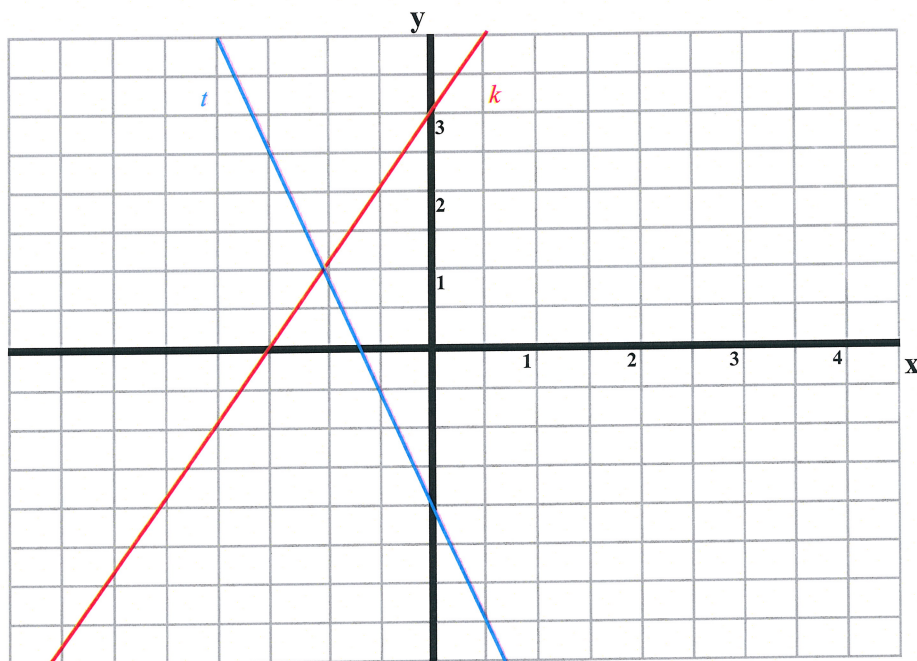
$$k: y = 2x + 3$$

$$t: y = -3x - 2$$

Fiskabein:

$$k: \begin{array}{c|c|c|c} x & -5 & 0 & 5 \\ \hline y & -7 & 3 & 13 \end{array}$$

$$t: \begin{array}{c|c|c|c} x & -5 & 0 & 5 \\ \hline y & 13 & -2 & -17 \end{array}$$

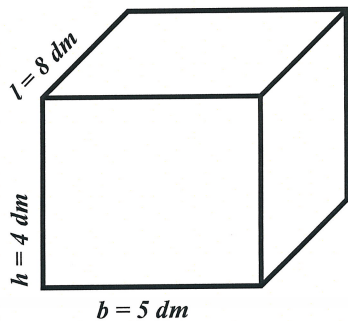


- c) Finn samskipanartöluni (krosstöluni) fyrri felagspunktið k og t .

$$\text{Krosstöluni} = \underline{\underline{(x, y) = (-1, 1)}}$$

3. Geometri

a) Finn rúmdina.



$$R = l \cdot b \cdot h$$

$$R = 8 \text{ dm} \cdot 4 \text{ dm} \cdot 5 \text{ dm}$$

$$= \underline{\underline{160 \text{ dm}^3}}$$

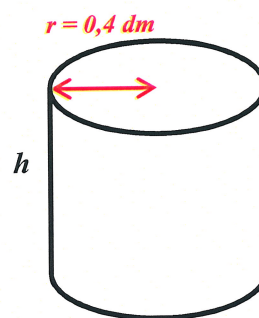
b) Rúmdin í einum sylindara er $0,258 \text{ dm}^3$. Finn hæddina.

$$R = r^2 \cdot \pi \cdot h$$

$$0,258 \text{ dm}^3 = 0,4^2 \text{ dm}^2 \cdot \pi \cdot h$$

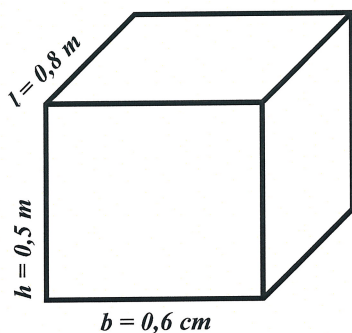
$$h = \frac{0,258 \text{ dm}^3}{0,4^2 \text{ dm}^2 \cdot \pi}$$

Hæddin



$$= \underline{\underline{1,05 \text{ dm}}}$$

c) Hvussu stór er rúmdin?



$$R = l \cdot b \cdot h$$

$$R = 8 \text{ dm} \cdot 0,6 \text{ dm} \cdot 5 \text{ dm}$$

$$= \underline{\underline{24 \text{ dm}^3}}$$

4. Líkningar

Loys líkningarnar:

$$\begin{aligned} \text{a)} \quad x - 8 &= 12 \\ x &= 12 + 8 \\ \underline{\underline{x &= 20}} \end{aligned}$$

$$\begin{aligned} \text{b)} \quad x + 9 &= 15 \\ x &= 15 - 9 \\ \underline{\underline{x &= 6}} \end{aligned}$$

$$\begin{aligned} \text{c)} \quad 2x &= 5 \cdot 6 \\ 2x &= 30 \\ &\quad \frac{30}{2} \\ x &= \frac{30}{2} \\ \underline{\underline{x &= 15}} \end{aligned}$$

$$\begin{aligned} \text{d)} \quad 3 - (9 - 2x) - 4 &= 12 \\ 3 - 9 + 2x - 4 &= 12 \\ 2x &= 12 - 3 + 9 + 4 \\ 2x &= 22 \\ &\quad \frac{22}{2} \\ x &= \frac{22}{2} \\ \underline{\underline{x &= 11}} \end{aligned}$$

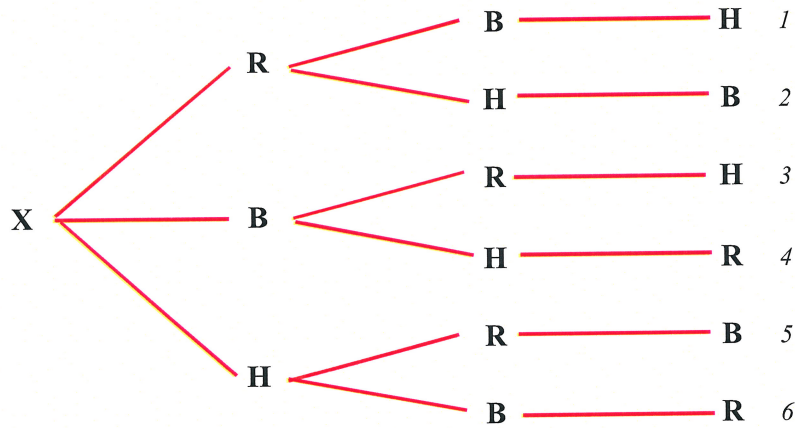
$$\begin{aligned} \text{e)} \quad 6x - (3x - 15) &= 2x + 16 \\ 6x - 3x + 15 &= 2x + 16 \\ 6x - 3x - 2x &= 16 - 15 \\ \underline{\underline{x &= 1}} \end{aligned}$$

$$\begin{aligned} \text{f)} \quad 72 - 2(3x + 7) &= 4(2x - 3) \\ 72 - 6x - 14 &= 8x - 12 \\ -6x - 8x &= -12 + 14 - 72 \\ -14x &= -70 \\ &\quad \frac{-70}{-14} \\ x &= \frac{-70}{-14} \\ \underline{\underline{x &= 5}} \end{aligned}$$

5. Líkindi

Hvussu nógvir móguleikar eru?

Dømi 1:



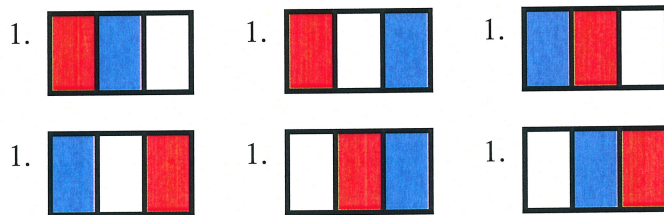
= 6 móguleikar

Dømi 2:

$$3 \cdot 2 \cdot 1$$

= 6 móguleikar

Dømi 3:



= 6 móguleikar

6. Algebra

Umstyt:

$$\begin{aligned} \text{a)} \quad & 10x + 2x - 4x \\ & \underline{\underline{8x}} \end{aligned}$$

$$\begin{aligned} \text{b)} \quad & 2 + 2a + 3 + 3a \\ & 2a + 3a + 2 + 3 \\ & \underline{\underline{5a + 5}} \end{aligned}$$

$$\begin{aligned} \text{c)} \quad & 3(4y + 2x) \\ & 12y + 6x \\ & \underline{\underline{6x + 12y}} \end{aligned}$$

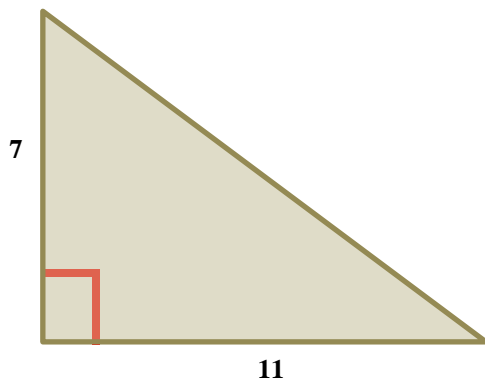
$$\begin{aligned} \text{d)} \quad & a - 2x - 3x - 2 + a \\ & a + a - 2x - 3x - 2 \\ & \underline{\underline{2a - 5x - 2}} \end{aligned}$$

$$\begin{aligned} \text{e)} \quad & x^2 + x^2 \\ & \underline{\underline{2x^2}} \end{aligned}$$

$$\begin{aligned} \text{f)} \quad & 4(-2y + 3) + 2y \\ & -8y + 12 + 2y \\ & -8y + 2y + 12 \\ & \underline{\underline{-6y + 12}} \end{aligned}$$

7. Ymiskt

a) Rokna langsíðuna á tríkantinum:



$$c^2 = a^2 + b^2$$

$$c^2 = 7^2 + 11^2$$

$$c = \sqrt{49 + 121}$$

$$c = \sqrt{170}$$

$$\approx \underline{\underline{13}}$$

b) Skriva ðll bítistölina hjá 21

$$= \underline{\underline{1, 3, 7 \text{ og } 21}}$$

c) Hvussu nógv sekund er í einum samdøgri?

$$1 \text{ døgur} = 24 \text{ tímar}$$

$$1 \text{ tími} = 60 \text{ min.}$$

$$1 \text{ min} = 60 \text{ sek.}$$

$$1 \text{ døgur} \cdot 24 \text{ tímar/døgur} \cdot 60 \text{ tímar/min} \cdot 60 \text{ min/sek}$$

$$= \underline{\underline{86.400 \text{ sek}}}$$