

Kijk goed na met een andere kleur.

Kijk ook of je berekeningen duidelijk hebt opgeschreven.

1 a) $67,79 : 13 \times 5 = 26,07$

b) $\text{€}78,90 : 23 \times 3 = 10,29$

c) $567 : 73 \times 15 = 116,51$

2 a) $17000 : 17 \times 12 = 12000$

b) $17000 : 20 \times 1 = 850$

3 a) $678 : 100 = 6,78$

b) $\text{€}467,96 : 100 = \text{€}4,68$

c) $78 : 100 \times 15 = 11,70$

d) $\text{€}45,98 : 100 \times 67 = \text{€}30,81$

e) $345,8 : 100 \times 4,3 = 14,87$

f) $\text{€}230,78 : 100 \times 2,4 = \text{€}5,54$

4) 63 % van 80 berekenen

$$80 : 100 \times 63 = 50,4$$

Er is 50,4 Gigabyte gebruikt

5) 16 % van 25 leerlingen berekenen

$$25 : 100 \times 16 = 4$$

4 leerlingen gaan met de bus

6 a) 7% van $\text{€}67 = \text{€}67 : 100 \times 7 = \text{€}4,69$

Hij krijgt van opa $\text{€}4,69$

b) $\text{€}67 + \text{€}4,69 = \text{€}71,69$

In totaal heeft hij dan $\text{€}71,69$ verdiend

7) manier 1

$$49,3\% \text{ van } 140 = 140 : 100 \times 49,3 = 69,02$$

$$140 - 69,02 = 70,98$$

Er is nog 70,98 Gigabyte vrij

manier 2

$$100\% - 49,3\% = 50,7\%$$

$$50,7\% \text{ van } 140 = 140 : 100 \times 50,7 = 70,98$$

Er is nog 70,98 Gigabyte vrij

manier 3

$$100\% - 49,3\% = 50,7\%$$

$$\frac{50,7}{100} = 0,507$$

$$0,507 \times 140 = 70,98$$

Er is nog 70,98 Gigabyte vrij

8 a) manier 1

$$20\% \text{ van } €59,65 \Rightarrow$$

$$€59,65 : 100 \times 20 = €11,93$$

$$€59,65 - €11,93 = \underline{\underline{€47,72}}$$

manier 2

$$100\% - 20\% = 80\%$$

$$80\% = 0,80$$

$$0,80 \times €59,65 = \underline{\underline{€47,72}}$$

8 b) manier 1

$$\text{trui} \Rightarrow \text{€}34 : 100 \times 20 = \text{€}6,80$$

$$\text{De trui kost nu } \text{€}34 - \text{€}6,80 = \text{€}27,20$$

$$\text{broek} \Rightarrow \text{€}89,50 : 100 \times 15 = \text{€}13,43$$

$$\text{De broek kost nu } \text{€}89,50 - \text{€}13,43 = \text{€}76,07$$

$$\text{In totaal: } \text{€}27,20 + \text{€}76,07 = \underline{\underline{\text{€}103,27}}$$

manier 2

$$\text{trui} \Rightarrow 100\% - 20\% = 80\%$$

$$80\% = 0,80$$

$$0,80 \times \text{€}34 = \text{€}27,20$$

$$\text{broek} \Rightarrow 100\% - 15\% = 85\%$$

$$85\% = 0,85$$

$$0,85 \times \text{€}89,50 = \text{€}76,08$$

$$\text{Totaal} = \text{€}27,20 + \text{€}76,08 = \underline{\underline{\text{€}103,28}}$$

$$9 \text{ a) } \frac{260}{100} = 2,6$$

$$b) 2,6 \times 500\,000 = 1\,300\,000 \text{ mensen}$$

$$10 \text{ a) } 100\% - 2,78\% = 97,22\%$$

$$\frac{97,22}{100} = 0,9722$$

$$0,9722 \times \text{€}1,72 = \text{€}1,67$$

$$b) \text{€}1,67 \times 34 = \text{€}56,78$$

$$11) \text{€}6,78 + \text{€}0,60 = \text{€}7,38$$

wordt verhoogd met 6%

$$\text{dus } 100\% + 6\% = 106\% \Rightarrow 1,06$$

$$1,06 \times \text{€}7,38 = \text{€}7,82 \text{ per kilo}$$

Voor 2,5 kilo moet je dan $2,5 \times \text{€}7,82 = \underline{\underline{\text{€}19,55}}$ betalen

12) Exclusief \Rightarrow BTW zit er niet bij
 \Rightarrow dus 21% van €95 aftrekken

$$100\% - 21\% = 79\%$$

$$79\% = 0,79$$

$$0,79 \times €95 = \underline{\underline{€75,05}}$$

of

$$21\% \text{ van } €95 = €95 : 100 \times 21 = €19,95$$

$$€95 - €19,95 = \underline{\underline{€75,05}}$$

13) $\frac{13}{56} = 13 : 56 = 0,23$

$$0,23 \times 100\% = 23\%$$

14) 8 van de 24 zijn ziek, dat is $\frac{8}{24}$ deel

$$\frac{8}{24} = 8 : 24 = 0,333$$

$$0,333 \times 100\% = \underline{\underline{33,3\%}}$$

15) oud €567
 nieuw €489
manier 1

$$€567 - €489 = €78,-$$

$$\frac{78}{567} = 0,1376 \Rightarrow 0,1376 \times 100\% = \underline{\underline{13,76\%}} \text{ korting}$$

manier 2

$$\frac{\text{nieuw}}{\text{oud}} = \frac{489}{567} = 0,8624$$

$$0,8624 \times 100\% = 86,24\%$$

$$100\% - 86,24\% = \underline{\underline{13,76\%}} \text{ korting}$$

16) oud € 45,98
nieuw € 53,67

manier 1

$$€ 53,67 - € 45,98 = € 7,69$$

$$\frac{7,69}{45,98} = 0,17$$

$$0,17 \times 100\% = \underline{\underline{17\%}}$$

manier 2

$$\frac{\text{nieuw}}{\text{oud}} = \frac{53,67}{45,98} = 1,167$$

$$1,167 \times 100\% = 116,7\% \approx 117\%$$

$$117\% - 100\% = \underline{\underline{17\%}}$$

17) oud 579000
nieuw 200000

manier 1

$$579000 - 200000 = 379000$$

$$\frac{379000}{579000} = 0,655$$

$$0,655 \times 100\% = \underline{\underline{65,5\%}}$$

manier 2

$$\frac{\text{nieuw}}{\text{oud}} = \frac{200000}{579000} = 0,345$$

$$0,345 \times 100\% = 34,5\%$$

$$100\% - 34,5\% = \underline{\underline{65,5\%}}$$

$$18 \text{ a) } 100\% + 24\% = 124\%$$

$$\frac{124}{100} = 1,24$$

De groeifactor is 1,24

$$18 \text{ b) } 100\% + 67,5\% = 167,5\%$$

$$\frac{167,5}{100} = 1,675$$

De groeifactor is 1,675

19 a) oud 250

nieuw 300

toename in % is $\Rightarrow 300 - 250 = 50$

$$\frac{50}{250} = 0,20 \Rightarrow 20\%$$

groeifactor $\Rightarrow 100\% + 20\% = 120\%$

$$\frac{120}{100} = \underline{\underline{1,20}}$$

b) Het aantal planten neemt met 20% toe.

$$20 \text{ a) } 100\% + 5\% = 105\%$$

$$\frac{105}{100} = \underline{\underline{1,05}}$$

b)

aantal min.	0	1	2	3	4	5
aantal bact.	45000	47250	49612,5	52093,1	54697,8	57432,7
		$\times 1,05$	$\times 1,05$	$\times 1,05$	$\times 1,05$	$\times 1,05$