NORTH-WEST / NOORDWES
PAPER 1 / VRAESTEL 1
SEPTEMBER 2020

E1

QUESTION 1 / VRAAG 1

1.1.1 Pie chart / *Sirkeldiagram*

1.1.2 $114-(39+8+7+6+34)$
$=114-94$
$=20$

1.1.3 China

1.1.4 $\frac{39}{114}\times 100\%$
$=34{,}2105...\%$
$\approx 34\%$

1.1.5 $6:34$
$=3:17$

1.1.6 The likelihood that an event will occur. /
Die kans dat 'n gebeurtenis sal plaasvind.

1.1.7 $\frac{8}{114}=\frac{4}{57}$

1.2.1 15

1.2.2 Venus

1.2.3 59 days / *dae*

1.2.4 165 years / *jaar* x 365 days / *dae*
=60 225 days / *dae*

1.2.5 3 100; 4 218; 7 500; 7 926; 32 300; 32 300; 75 000; 89 400; 870 000

1.2.6 2,8 billion miles / *miljard myl*
$=2\,800\,000\,000\times 1{,}60934$ km
$=4\,506\,152\,000$ km
$=4{,}506152$ billion km / *miljard km*

1.2.7 six hundred and ninety-five thousand five hundred and ten/
ses honderd vyf-en-negentig duisend vyf honderd en tien

QUESTION 2 / VRAAG 2

2.1.1 $57,42

2.1.2 Astronomers without borders SheSky 130

2.1.3 **Difference / *Verskil***
$=\$1\,739{,}00-\$48{,}95$
$=\$1\,690{,}05$

2.1.4 **Total Cost / *Totale koste***
$=3\times\$48{,}95+2\times\$499{,}99+\$1\,739{,}00$
$=\$2\,885{,}83$

2.1.5 $100\%-12{,}5\%=87{,}5\%$

Discounted price / *Afslagprys*

$= \$2\,885{,}83 \times 87{,}5\%$

$= \$2\,885{,}83 \times \frac{87{,}5}{100}$

$= \$2\,525{,}10125$

$\approx \$2\,525{,}10$

2.1.6 $\$1\,739{,}00 \times \frac{100}{115}$ **or/of** $\$1\,739{,}00 \div \frac{115}{100}$

$= \$1\,512{,}1739...$ | $= \$1\,512{,}1739...$

$\approx \$1\,512{,}17$ | $\approx \$1\,512{,}17$

2.1.7 $\$699{,}00$

$= (699{,}00 \times 15{,}04)$ **rands / *rand***

$= R10\,512{,}96$

2.2.1 R3 445,00

2.2.2 Astronomy / *Astronomie*

2.2.3 Basic salary / *Basiese salaris*

$= R60\,751{,}00 - (R7\,532{,}00 + R3\,445{,}00)$

$= R60\,751{,}00 - R10\,977{,}00$

$= R49\,774{,}00$

2.2.4 B

$= R49\,774{,}00 \times 7{,}5\%$

$= R49\,774{,}00 \times \frac{7{,}5}{100}$

$= R3\,733{,}05$

2.2.5 C

$= R14\,710{,}00 + R3\,733{,}05 + R2\,790{,}00$

$= R21\,233{,}05$

2.3.1 R167 484

2.3.2 Deposit / *Deposito*

$= R167\,484 \times 25\%$

$= R167\,484 \times \frac{25}{100}$

$= R41\,871$

2.3.3 Loan amount / *Leningsbedrag*

$= R167\,484 - R41\,871$

$= R125\,613$

2.3.4 Total monthly payments / *Totale maandelikse betalings*

$= R3\,402{,}02 \times 60$

$= R204\,121{,}20$

2.3.5 Interest / *Rente*

$= R204\,121{,}20 - R125\,613$

$= R78\,508{,}20$

2.3.6 Total amount / *Totale bedrag*

$= R167\,484 + R78\,508{,}20$

$= R245\,992{,}20$

or/of $= R41\,871 + R125\,613 + R78\,508{,}20$

$= R245\,992{,}20$

2.4.1 Pay-as-you-earn / *Lopende betaalstelsel*

2.4.2 R136 750

2.4.3 R7 794 + R14 220 = R22 014

2.4.4 Tax bracket 1 / *Belastingkategorie 1*

2.4.5 Annual income / *Jaarlikse inkomste*

$= R34\,160 \times 12$

$= R409\,920$

Tax before rebates / *Belasting voor korting*

$= R63\,853 + 31\%(R409\,920 - R305\,850)$

$= R63\,853 + \frac{31}{100}(R104\,070)$

$= R63\,853 + R32\,261{,}70$

$= R96\,114{,}70$

Tax payable / *Belasting betaalbaar*

$= R96\,114{,}70 - R14\,220$

$= R81\,894{,}70$

QUESTION 3 / VRAAG 3

3.1.1 1 500 mm = (1 500 ÷ 10) cm = 150 cm

3.1.2 Surface area / *Buite-oppervlakte*

$= 2(\ell \times b) + 2(b \times h) + 2(\ell \times h)$

$= 2(150 \times 28) + 2(28 \times 30) + 2(150 \times 30)$

$= 19\,080\ cm^2$

3.1.3 rectangular prism / *reghoekige prisma*

3.1.4 $°C = (°F - 32) \div 1{,}8$

$= (-67 - 32) \div 1{,}8$

$= -99 \div 1{,}8$

$= -55\,°C$

3.2.1 Volume $= \pi \times r^2 \times h$

$184{,}2638\ m^3 = 3{,}142 \times (2{,}1\,m)^2 \times h$

$\therefore h = \frac{184{,}2638\ m^3}{3{,}142 \times (2{,}1\,m)^2}$

$= 13{,}2982...m$

$\approx 13{,}3\ m$

3.2.2 $97\ min = \frac{97}{60}h$

Distance = Speed × Time /
Afstand = Spoed × Tyd

$= 28\,000\ km/h \times \frac{97}{60}\ h$

$= 45\,266{,}666...\ km$

$\approx 45\,266{,}67\ km$

QUESTION 4 / VRAAG 4

4.1.1 Row E / *Ry E*

4.1.2 6

4.1.3 Number of seats / *Getal sitplekke*

$= 19 + 23 + 26 + 28 + 29 + 26 + 17 + 15 + 15$

$= 198$

4.1.4 $\frac{26}{198} = \frac{13}{99}$

4.1.5 North west / *Noordwes*

4.1.6 Enter the auditorium. Turn right and walk with the aisle behind row F to the end of row F. Go down two steps. Row E will be on your left. Your daughter is in the third seat from the end./ *Gaan die ouditorium binne. Draai regs en loop met die paadjie agter ry F tot aan die einde van ry F. Gaan met twee trappies af. Ry E is aan jou linkerkant. Jou dogter sit in die derde sitplek van die punt af.*

4.2.1 N1

4.2.2 Regional route / *Streeksroete*

4.2.3 Touwsrivier

4.2.4 232 km + 110 km = 342 km

QUESTION 5 / VRAAG 5

5.1 32

5.2 If the data is sorted in ascending order, the median will be the value in the middle of the dataset./
Indien die data in stygende orde gerangskik word, sal die mediaan die waarde in die middel van die datastel wees.

5.3 47 64 77 89 **95** 102 106 112 118

median / *mediaan*: 95

5.4 32 73 75 **87** **87** 91 102 103 108

mode / *modus*: 87

5.5 mean / *gemiddelde*

$= \frac{47+64+77+89+95+102+106+112+118}{9}$

$= \frac{810}{9}$

$= 90$

percentage / *persentasie*

$= \frac{90}{120} \times 100\%$

$= 75\%$

5.6 Range = max – min / *Omvang = maks – min*

$\therefore 75 = B - 44$

$\therefore B = 75 + 44$

$= 119$

5.7 $IQR = Q_3 - Q_1$ / $IKV = K_3 - K_1$

$= 102{,}5 - 74$

$= 28{,}5$

5.8 16

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PAPER 2 / VRAESTEL 2
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QUESTION 1 / VRAAG 1

1.1.1 Crispy / *Skyfies*

1.1.2 The distribution of sugar increases from 7:00 to 8:15. The distribution of crispy decreases