

Asesu Cyfathrebu Ysgrifenedig

Cwestiynau 1–8: Heb Gyfrifiannell

Cwestiynau 9–16: Hefo Gyfrifiannell

1.

Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Gwnaeth grŵp o 45 plentyn, gyda rhai oedolion, deithio mewn bws ar drip i Warchodfa Natur. Cyfanswm cost y trip oedd £523.

Y ffi i fynd i mewn oedd £12 am bob oedolyn ac £8 am bob plentyn.

Cost llogi'r bws oedd £115.

Faint o oedolion oedd yn y grŵp?

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Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Mae Andrew yn prynu oergell-rhewgell sydd â phris dangosol o £720.

Dangoswch eich holl waith cyfrifo.

[7]

[illegible]

3.

Mae Mr a Mrs Jones a'u pedwar plentyn, sy'n 12, 9, 7 a 4 oed, yn ymweld â ffair deganau. Mae cost tocynnau i'r ffair yn cael ei dangos ar fwrdd.

TEGANAU AR HYD YR OESOEDD

Oedolion £15 yr un

Hanner pris i blant dan 14 oed

Mynediad am ddim i blant dan 5 oed

(a) Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y rhan hon o'r cwestiwn.

Beth yw cyfanswm cost y tocynnau i Mr a Mrs Jones a'r plant fynd i'r ffair deganau?
Dangoswch eich holl waith cyfrifo.

[6]

(b) Roedd gan Mrs Jones daleb (*voucher*) oedd yn rhoi disgownt o 10% i ffwrdd o gyfanswm cost eu tocynnau.
Faint gwnaethon nhw ei dalu mewn gwirionedd am eu tocynnau?

[2]

4.

Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Mae'r tabl isod yn dangos y costau ar gyfer llogi cymysgydd concrit fesul diwrnod.

Cost am y diwrnod cyntaf	Cost y diwrnod ar ôl y diwrnod cyntaf
£16.10	£8.15

Mae yna gynigion arbennig ar gyfer llogi'r cymysgydd concrit am benwythnos neu o ddydd Llun i ddydd Gwener.

Penwythnos (dydd Sadwrn a dydd Sul)	Wythnos (dydd Llun i ddydd Gwener)
£22.54	£32.20

Mae James eisiau llogi cymysgydd concrit o ddydd Llun i ddydd Iau.

Faint yn fwy rhad yw hi i logi cymysgydd concrit am wythnos (dydd Llun i ddydd Gwener) nag yw hi i logi un o ddydd Llun i ddydd Iau fesul diwrnod? [6]

[illegible]

5.

Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Mae Melanie yn ennill £1200 y mis.

O hyn, mae hi'n gwario $\frac{1}{3}$ ar rent a $\frac{1}{4}$ ar fwyd.

Pa ffraksiwn o'i henillion sydd ganddi dros ben?

Rhaid i chi ddangos eich holl waith cyfrifo ac ysgrifennu eich ffraksiwn ar ei ffurf symlaf.

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6.

Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Pan fydd Liam yn cael bath mae e'n defnyddio 150 litr o ddŵr.

1 Mae ei chwaer Tina yn honni ei bod hi'n defnyddio 40% yn llai o ddŵr pan fydd hi'n cael
cawod nag mae Liam yn ei ddefnyddio pan fydd e'n cael bath.

I brofi'r honiad hwn, gwnaeth Tina y ddau sylw canlynol.

- Mae 1 litr o ddŵr yn dod allan o ben y gawod (*shower head*) bob 10 eiliad
- Mae Tina'n treulio 15 munud yn y gawod.

Ydy honiad Tina yn gywir?

Rhaid i chi ddangos eich holl waith cyfrifo.

[illegible]

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7.

(d) Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y rhan hon o'r cwestiwn.

Mae Owen a Nia yn ymchwilio i brynu eu cegin.

Mae angen iddyn nhw brynu:

- cabinetau cegin a wynebaw gweithio (*worktops*) am £3200,
- nwyddau trydanol am £2649,
- sinc a draeniwr am £250.

Mae gosodwr ceginau lleol yn codi £1200 ond mae'n gallu cynnig disgownt o 10% iddyn nhw am ei waith.

Mae trydanwr yn codi £600.

Mae gan blymwr ffi galw allan o £40 ac yna mae'n codi £25 yr awr.

Mae angen 2 awr ar y plymwr i gwblhau ei waith.

Mae cwmni ceginau mawr yn dweud eu bod nhw'n codi £8000 am bopeth gan gynnwys gosod.

A ddylai Owen a Nia ddewis y cwmni ceginau mawr i osod eu cegin?

Rhowch reswm dros eich ateb.

Rhaid i chi ddangos eich holl waith cyfrifo.

[9]

[illegible]

8.

Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Mae siop yn gwerthu orennau mewn pecynnau o 8 am y pris £1.44.
Mae cynnig arbennig yn cael ei hysbysebu fel dau becyn am £2.40.

Prynodd Emyr ddau becyn gan ddefnyddio'r cynnig arbennig.

Roedd Emyr wedi gorfod taflu $\frac{1}{4}$ o'r orennau a brynodd oherwydd iddyn nhw lwydo (*became mouldy*) cyn iddo gael amser i'w bwyta.

Cyfrifwch y pris am bob oren

- (i) wrth brynu pecyn sengl,
- (ii) wrth brynu dau becyn gyda'r cynnig arbennig,
- (iii) ar gyfer yr orennau gwnaeth Emyr eu defnyddio mewn gwirionedd.

Rhowch sylwadau am y cwestiwn a oedd Emyr yn ddoeth i ddefnyddio'r cynnig arbennig.
Rhaid i chi ddangos eich holl waith cyfrifo.

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9.

Mae Catrin yn gweld yr hysbyseb isod ar y Rhyngrwyd am y beic rasio mae hi eisiau ei brynu.

Mae'r cwmni Rhyngrwyd yn cynnig disgownt o $\frac{1}{10}$ i ffwrdd o'r pris sy'n cael ei ddangos.



- (a) Cyfrifwch bris disgowntiedig y beic rasio. [2]

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- (b) Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y rhan hon o'r cwestiwn.

Yn lle hynny, mae Catrin yn penderfynu y bydd hi'n prynu beic rasio yn ei siop feicio leol. Mae'r beic mae hi eisiau ei brynu yn costio £925.

Mae hi wedi cynilo £470 tuag at gost prynu'r beic rasio hwn.

Mae Catrin yn ennill £600 yr wythnos.

Mae hi'n gallu cynilo 20% o'r swm mae hi'n ei ennill bob wythnos.

Am faint o wythnosau bydd angen i Catrin gynilo i gael y beic rasio?

Rhaid i chi ddangos eich holl waith cyfrifo. [7]

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10.

Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Mae bil dŵr yn cael ei gyfrifo drwy adio tâl sefydlog, tâl dŵr a thâl carthffosiaeth (*sewerage*).
Dyma'r taliadau eleni:

- tâl sefydlog o 30c y diwrnod am gyfnod y bil
- £1.33 am bob m^3 o ddŵr sy'n cael ei ddefnyddio
- ar gyfer 95% o nifer y metrau ciwbig o ddŵr sy'n cael eu defnyddio, mae tâl carthffosiaeth o £1.66 y m^3 .

Cyfrifwch gyfanswm y bil pan fydd 60m^3 o ddŵr yn cael ei ddefnyddio mewn cyfnod bil o 180 o ddiwrnodau.

Rhaid i chi ddangos eich holl waith cyfrifo.

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11.



Mae Rowena yn berchen car mae Dafydd yn bwriadu ei brynu mewn 3 blynedd.

Ar hyn o bryd mae car Rowena yn werth £3500.

Mae Rowena yn amcangyfrif bydd ei char hi'n dibrisio 24% o'i werth bob blwyddyn dro ar ôl tro.

Mae Dafydd wedi cynilo £100 yn barod.

Mae Dafydd eisiau trefnu cyfrif cynilo er mwyn cynilo swm sefydlog o arian bob mis i brynu car Rowena mewn 3 blynedd.

(a) Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y rhan hon o'r cwestiwn.

Beth fyddai'r swm lleiaf o arian, i'r bunt agosaf, dylai Dafydd ei dalu i mewn i'w gyfrif cynilo bob mis?

Rhaid i chi ddangos eich holl waith cyfrifo.

[9]

[illegible]

12.

Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Roedd Adrian eisiau rhentu bwthyn gwyliau yn yr Alban ar gyfer ei deulu.

Gwelodd e'r hysbyseb ganlynol.

Rhentwch fwthyn yn yr Alban!

£620 yr wythnos ym mis Awst.

Talwch nawr a chael 15% i ffwrdd.

Os gwnewch chi ganslo, bydd unrhyw arian sydd wedi'i dalu yn cael ei roi yn ôl i chi, llai £60.

Bwciodd Adrian y bwthyn ar unwaith a thalu am un wythnos ym mis Awst.

Y diwrnod nesaf, gwelodd Adrian hysbyseb am fwthyn gwahanol yn yr Alban.

Roedd hwn yn costio £69 y noson ym mis Awst.

A fyddai Adrian wedi arbed unrhyw arian pe bai wedi canslo'r bwciad am y bwthyn cyntaf ac yna rhentu'r ail fwthyn?

Rhaid i chi ddangos eich holl waith cyfrifo.

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14.

Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Mae Eddie eisiau prynu neclis unfath (*identical*) i bob un o'i **ddwy** chwaer.



Mae'r math penodol o neclis mae eisiau ei brynu yn cael ei hysbysebu ar werth ar ddwy wefan wahanol. Mae ef eisiau i'r ddwy neclis gael eu dosbarthu i'w gartref.

Jewellery Boutique

Neclis arian
£36 + TAW ar 20%

Post a phacio £6.95 am archebion
hyd at £100, fel arall am ddim.

Gems and Co

Neclis arian £55
PRYNU UN, CAEL YR AIL UN
AM HANNER PRIS!

Dosbarthu am ddim

Pa wefan sy'n fwyaf rhad, a faint yn fwy rhad yw hi?
Rhaid i chi ddangos eich holl waith cyfrifo.

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15.

Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Mae pobl yn gallu dewis cysylltu 'Cymorth Rhodd' ('Gift Aid') â'r swm o arian maen nhw'n ei roi i elusen.

Mae hyn yn golygu bod yr elusen yn gallu hawlio £2.50 yn ychwanegol oddi wrth y Llywodraeth am bob £10 sy'n cael ei roi gyda 'Cymorth Rhodd'.

Derbyniodd elusen benodol roddion o £24 810 llynedd.

Roedd yr elusen yn gallu hawlio 'Cymorth Rhodd' ar un rhan o dair o'r swm hwn.

Cyfrifwch y swm ychwanegol o arian roedd yr elusen yn gallu ei hawlio oddi wrth y Llywodraeth.
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Cewch eich asesu ar ansawdd eich cyfathrebu ysgrifenedig yn y cwestiwn hwn.

Rhestr prisiau paent	
Lliw	Pris am bob 100 ml
Gwyn	£1.20
Glas	£1.30
Coch	£1.35

Mae rhywun yn gofyn i Jenny gymysgu paent ar gyfer cwsmer. Mae'r cwsmer wedi archebu 1 litr o baent "awgrym o binc" a 5 litr o baent "awgrym o borffor". Cyfrifwch gost archeb y cwsmer am baent.

[illegible]

[8]

Cynllun Marcio

1.

Indirect marking – Tick marked		
5. Cost of entrance fee for children = (£)8×5×9 OR 8×45 = (£) 360	M1 A1	
Total cost of adult tickets = (£) 523 – 360 – 115 = (£)48	M1 A1	F.T. 'their 360'
Number of adults = 48/12 = 4	M1 A1	F.T. 'their 48'
Look for		
• spelling • clarity of text explanations, • the use of notation (watch for the units (£, p))		
QWC2: Candidates will be expected to	QWC 2	QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.
• present work clearly, with words explaining process or steps		
AND		QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar.
• make few if any mistakes in mathematical form, spelling, punctuation and grammar in their final answer		OR Evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar.
QWC1: Candidates will be expected to		
• present work clearly, with words explaining process or steps		QWC0 Evident weaknesses in organisation of material, and errors in use of mathematical form, spelling, punctuation and grammar.
OR		
make few if any mistakes in mathematical form, spelling, punctuation and grammar in their final answer.		

2.

June 2015 UNIT 1 Higher	✓	Mark	Comments
1. (Price reduction =) $0.15 \times (£)720$ = (£)108 (New price = £720 – £108 =) (£)612 (Monthly payment =) (£)612 ÷ 12 = (£)51	✓ ✓ ✓ ✓ ✓	M1 A1 A1 M1 A1	M2 for 0.85×720 F.T. £720 – 'their £108'. F.T. 'their £612'. <i>Alternative methods</i> (Original monthly payment =) (£)720 ÷ 12 M1 = (£)60 A1 (Monthly reduction =) $0.15 \times (£)60$ M1 FT = (£)9 A1 (Monthly payment =) (£)51 A1 OR (Price reduction =) $0.15 \times (£)720$ M1 = (£)108 A1 (Monthly saving = £108/12 =) (£)9 B1 FT (Monthly payment =) $720/12 - 9$ M1 = (£)51 A1 <i>Note: Allocate marks for <u>one method only</u> (do not 'mix and match'). Use method that maximises total mark.</i>
Look for			
- spelling - clarity of text explanations and correct units shown - the use of notation (watch for the use of '=', '+', '–', '×' and '÷' being appropriate)	✓ ✓	QWC 2	QWC2. Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.
QWC2: Candidates will be expected to			QWC1. Presents relevant material in a coherent and logical manner, but with some errors in use of mathematical form, spelling, punctuation or grammar.
present work clearly, with words explaining process or steps			OR
AND			Evident weakness in organisation of material but using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.
make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer			
QWC1: Candidates will be expected to			QWC0. Evident weakness in organisation of material and errors in use of mathematical form, spelling, punctuation and grammar.
present work clearly, with words explaining process or steps			
OR			
make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer			<u>An unsupported answer is QWC0.</u>

3.

June 2015 UNIT 1 Foundation	✓	Mark	Comments
1. Ribbon marking for 1(a) and 1(b). (a) (Two adult tickets = $2 \times £15 =$) (£)30 (One child's ticket =) (£)7.5(0) (Three child's tickets = $3 \times £7.50 =$) (£)22.5(0) (Total cost =) (£)52.5(0)	✓ ✓ ✓ ✓	B1 B1 B1 B1	Sight of (£)7.5(0) or may be implied in further work. F.T. $3 \times \text{'their £7.50'}$, but not $3 \times £15$ F.T. 'their amounts' but not if simply £15 or £7.50. Correct answer gains B4.
Look for - spelling - clarity of text explanations and correct units shown - the use of notation (watch for the use of '=' and '+' being appropriate) QWC2: Candidates will be expected to - present work clearly, with words explaining process or steps AND - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer QWC1: Candidates will be expected to - present work clearly, with words explaining process or steps OR - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer	✓ ✓	QWC 2	QWC2. Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC1. Presents relevant material in a coherent and logical manner, but with some errors in use of mathematical form, spelling, punctuation or grammar. OR Evident weakness in organisation of material but using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC0. Evident weakness in organisation of material and errors in use of mathematical form, spelling, punctuation and grammar. <u>An unsupported answer is QWC0.</u>
Ribbon marking for 1(a) and 1(b). 1(b) (£)47.25		B2	F.T. $0.9 \times \text{'their total cost'}$. B1 for (£)5.25 OR a correct evaluation of $0.1 \times \text{'their total cost'}$.

4.

2015 Summer Linear Paper 2 (Calculator allowed) Foundation Tier	Marks	Comments
10. Week hire = 32.20 4 day hire = $16.10 + 3 \times 8.15$ = (£)40.55 Difference = $40.55 - 32.20$ = (£) 8.35	M1 A1 M1 A1	FT 'their derived 40.55'
Look for - spelling - clarity of text explanations, - the use of notation (watch for the use of '=', £ being appropriate) QWC2: Candidates will be expected to - present work clearly, with words explaining process or steps AND - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer QWC1: Candidates will be expected to - present work clearly, with words explaining process or steps OR - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer	QWC 2	QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar . OR Evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar. QWC0 Evident weaknesses in organisation of material, and errors in use of mathematical form, spelling, punctuation and grammar.

10. EITHER $\frac{1}{4} + \frac{1}{3}$ $= \frac{7}{12}$ leaving $1 - \frac{7}{12}$ $= \frac{5}{12}$ M1 A1 M1 A1	OR $\frac{1}{4}$ of (£)1200 = (£)300 $\frac{1}{3}$ of (£)1200 = (£)400 Leaving 500 $\frac{5}{12}$	✓ B1 B1 M1 A1 M1 for implementing the addition of the fractions by a correct method. This M1 is F.T. in both methods C.A.O.
Look for - Spelling - Clarity of text explanations, e.g. food, rent - The use of notation – watch for ‘=’, ‘£’, ‘p’ being used appropriately.		QWC 2
QWC2: Candidates will be expected to - present work clearly, with words explaining their processes or steps AND - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer QWC1: Candidates will be expected to - present work clearly, with words explaining their processes or steps OR - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer		QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar. OR Evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar. QWC0 Evident weaknesses in organisation of material, and errors in use of mathematical form, spelling, punctuation and grammar.

9. (Water used in shower =) $\frac{15 \times 60}{10}$ = 90 (litres) (40% of 150 litres =) 150×0.4 = 60 (litres) So, 60% of the water = 90 (litres) 'Yes, Tina's claim was correct.'		✓ M1 ✓ A1 ✓ M1 ✓ A1 ✓ A1	<u>Alternative methods</u> OR $\frac{90}{150} \times 100$ M1 Using 60% B1 $= 60(\%) \text{ (of Liam's amount)}$ A1 150×0.6 M1 $(\text{which is } 40(\%) \text{ less})$ A1 $= 90(\text{litres})$ A1 OR $\frac{60}{150} \times 100$ M1 $= 40(\%)$ A1 F.T. their values.	
Look for • spelling • clarity of text explanations, • the use of notation (watch for the use of '=', litres, % being appropriate)	QWC2: Candidates will be expected to • present work clearly, with words explaining process or steps AND • make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer QWC1: Candidates will be expected to • present work clearly, with words explaining process or steps OR • make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer	✓ QWC 2 ✓ ✓	QWC2. Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC1. Presents relevant material in a coherent and logical manner, but with some errors in use of mathematical form, spelling, punctuation or grammar. OR Evident weakness in organisation of material but using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC0. Evident weakness in organisation of material and errors in use of mathematical form, spelling, punctuation and grammar	

7.

4.(e) (Total cost of kitchen items) $3200 + 2649 + 250$ (= (£)6099) (Kitchen fitter charges) $1200 - 10/100 \times 1200$ (£)1080 (Plumber's costs) $40 + 2 \times 25$ (£)90 (Total costs $6099 + 1080 + 600 + 90$ =) (£)7869 No with a valid reason given based on costs OR yes with a valid reason about using just one company and the cost being slightly more expensive	S1 M1 A1 M1 A1 B1 E1	Attempt to add at least 3 costs Full method required This M1 A1 may be implied in further working FT "their 1080" + "their 90" + 600 + 6099 FT their total costs. Eg "No as it costs less than £8000". Award E1 if their costs slightly >£8000 but still choose to answer no with reason given based on using local company.
Look for	Q W C 2	QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.
QWC2: Candidates will be expected to		QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar
AND		OR
QWC1: Candidates will be expected to		evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar.
OR		QWC0 Evident weaknesses in organisation of material, and errors in use
	9	

8.

(Number of oranges Emyr ate = $\frac{3}{4} \times 16$ =) 12 Use of 'Price ÷ N ^o of oranges'. (Price per orange) (Single pack) £1.44/8 = (£)0.18 or 18(p) (Two packs) £2.40/16 = (£)0.15 or 15(p) (Oranges eaten) £2.40/12 = (£)0.20 or 20(p)	✓ ✓ ✓ ✓	B1 M1 A2	Candidates may earn these marks in the order they present their answer. A1 for 1 or 2 correct. FT 'their 12'. Allow, <u>in this instance only</u> , 0·18p etc. but penalise in QWC award (unless corrected to 18p in further work).
Statement that Emyr was not wise to use the special offer (as the price of the oranges eaten is more than the original cost)	✓	A1	For a correct comparison of 18p with $240 \div$ 'their 12'. ($8 < \text{'their 12'} < 16$).
Look for	✓ ✓	QWC 2	QWC2. Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.
QWC2: Candidates will be expected to			QWC1. Presents relevant material in a coherent and logical manner, but with some errors in use of mathematical form, spelling, punctuation or grammar.
AND			OR
QWC1: Candidates will be expected to			Evident weakness in organisation of material but using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.
OR			QWC0. Evident weakness in organisation of material and errors in use of mathematical form, spelling, punctuation and grammar.
			<u>An unsupported answer is QWC0.</u>

9.

5.(a) (Cost of bike) $1100 - 1/10 \times 1100$ OR $9/10 \times 1100$ (£)990	M1 A1	
(b) (Save each month) $20/100 \times 600$ (£)120 (Number of weeks) $(925 - 470) \div 120$	M1 A1 M1	FT 'their 120'. Award M1 for repeatedly adding 120 onto 470 OR for adding 120s up towards 455. Award A1 for sight of 830 and/or 950
3.(79..) Conclusion given that it will take 4 weeks	A1 A1	
Look for - spelling - clarity of labels - the use of notation (watch for the use "=", +, -, ×, ÷, £" being appropriate)	Q W C 2	QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.
QWC2: Candidates will be expected to - present work clearly, with words explaining process or steps AND - make few if any mistakes in mathematical form, spelling, punctuation and grammar in their answer		QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar OR evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar.
QWC1: Candidates will be expected to - present work clearly, with words explaining process or steps OR - make few if any mistakes in mathematical form, spelling, punctuation and grammar in their final answer		QWC0 Evident weaknesses in organisation of material, and errors in use
	9	

10.

November 2015 UNIT 1 Higher	Mark	FINAL MARK SCHEME Comments
1. (Fixed charge =) $180 \times (£)0.3(0)$ (= £54) (Water charge =) $60 \times (£)1.33$ (= £79.80) (Sewerage cost =) $60 \times 0.95 \times (£)1.66$ or equivalent. = (£)94.62 or 9462(p) (Total bill =) £228.42 or 22842p	B1 B1 M1 A1	For sight of 180×0.3 or 180×30 or (£)54 or 5400(p) For sight of 60×1.33 or 60×133 or (£)79.8 or 7980(p) Accept using 166(p)
Look for - spelling - clarity of text explanations and correct units shown - the use of notation (watch for the use of '=', '+', and '×' being appropriate)	B1	F.T. £133.80 + 'their sewerage costs'. Correct units must be given.
QWC2: Candidates will be expected to - present work clearly, with words explaining process or steps AND - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer	QWC 2	QWC2. Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.
QWC1: Candidates will be expected to - present work clearly, with words explaining process or steps OR - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer		QWC1. Presents relevant material in a coherent and logical manner, but with some errors in use of mathematical form, spelling, punctuation or grammar. OR Evident weakness in organisation of material but using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.
	7	QWC0. Evident weakness in organisation of material and errors in use of mathematical form, spelling, punctuation and grammar.

11.

Linear GCSE Mathematics Higher Tier November 2015 Paper 2		FINAL MARK SCHEME Comments
8.(a)		<i>If an error is made with $1 - 0.24$ or equivalent, i.e. working with e.g. uniquely 0.66 or 0.86, penalise -1 once only</i>
(Rowena's car depreciated value) $(£)3500 \times 0.76^3$ or equivalent	M2	M1 for 3500×0.76 or $3500 - 3500 \times 0.24$ or 2660, or allow M1 for $3500 - 3500 \times 0.24^3$, or M1 for simple depreciation $3500 - 3 \times 840$ (= £980) M1 for appreciation 3500×1.24
(£)1536(.416)	A1	CAO, but accept 1540 from correct working or a value rounding to (£)1536
(Dafydd needs to save a total of £1536(.416) - £100) (£)1436(.416)	B1	FT 'their 1536' - 100 evaluated correctly provided at least M1 awarded <i>If no marks so far due to working with £3400, then award SC3 for (£)1492.51(84) or (£)1492.52, or SC2 for 3400×0.76^3, or SC1 for sight of 3400×0.76 or $3400 - 3400 \times 0.24$ or allow for sight of $3400 - 3400 \times 0.24^3$ or $3400 - 3 \times 816$ (=952)</i>
(Dafydd needs to save, per month £) $1436(.416) \div 36$	M1	FT 'their 1436(.416)' $\div 36$, i.e. what they think the car is now worth, but do not FT for $3500 \div 36$ or $3400 \div 36$ Note: $£1536(.416) \div 36 - (£)100 \div 36$ is equivalent to B1, M1
(£) 40	A2	A1 for (£)39.88... to (£)39.90(00...) FT for A2 provided rounding is necessary, otherwise maximum of FT A1 only. When rounding is necessary, accept rounding up or down to the nearest pound if number of pence is <50 <i>An answer of (£)43 is from $(£)1536(.416) \div 36$ evaluated correctly with answer to the nearest £, this is awarded M2, A1, B0, then FT M1 and A2 (or A1 for (£)42.6(...) or (£)42.70</i>
QWC2: Candidates will be expected to - present work clearly, with words explaining process or steps AND - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer QWC1: Candidates will be expected to - present work clearly, with words explaining process or steps OR - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer	QWC2	QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar OR evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar. QWC0 Evident weaknesses in organisation of material, and errors in use of mathematical form, spelling, punctuation or grammar.

12.

2. (Reduced cost of first cottage =) 620×0.85 OR $620 - 620 \times 0.15$ OR $620 - 93$ $(= £)527$ (Cost of second cottage =) $(= £)69 \times 7$ $(= £)483$ Considers £60 cancellation charge in an appropriate calculation. Interpretation: e.g. 'No, more expensive to pay for the second cottage'. Look for: - accuracy of spelling - clarity of labels - correct units shown (£) - the use of notation (appropriate use of "=", "+", "-", "x"). QWC2: Candidates will be expected to - present work clearly, with words explaining process or steps AND - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer. QWC1: Candidates will be expected to - present work clearly, with words explaining process or steps OR - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units (£) in their final answer.	M1 A1 M1 A1 S1 E1 Q W C 2 8	Or equivalent full method. Complete method for finding 69×7. CAO e.g. 'their 527' - 60 (= 467) or 'their 483' + 60 (= 543) (either $483 > 467$ or $543 > 527$) FT for a correct conclusion from 'their numbers'. Award of E1 depends on at least M1 and S1, no error in adding or subtracting 60, and no error in finding a price difference. QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar OR evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar. QWC0 Evident weaknesses in organisation of material, and errors in use of mathematical form, spelling, punctuation or grammar.
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13.

(2010: £3400 to BRL) 2.86×3400 9724 (BRL) (2014: 9724 BRL to £) $9724 \div 3.71$ (£)2621(.024..) (Ava makes a loss) Loss AND (£)779	M1 A1 M1 A1 A1	May be implied in later working FT 'their derived 9724', provided $\neq 3400$ FT 3400 - 'their 2621(.024)' rounded to the nearest pound provided both M marks awarded A0 for sight of (£)778.98 or (£)778(9...), or for (£)779 without indication of loss. <i>Alternative:</i> (2010: £3400 to BRL) 2.86×3400 9724 (BRL) <i>M1</i> (May be implied in later working) <i>A1</i> (2014: £3400 to BRL $3.71 \times 3400 = 12614$ BRL) (AND Difference in BRL $12614 - 9724 =$) 2890 (BRL) <i>A1</i> (FT 12614 - 'their derived 9724') (Difference in £ is) $2890 \div 3.71 (= 778.975...)$ <i>M1</i> (FT 'their 2890') (£)779 AND Loss <i>A1</i> OR (Difference in exchange rates) $3.71 - 2.86 (= 0.85)$ <i>M1</i> (Difference in BRL) 0.85×3400 2890 (BRL) <i>M1</i> (FT 'their 3.71 - 2.86') <i>A1</i> CAO (Difference in £ is) $2890 \div 3.71 (= 778.975...)$ <i>M1</i> (FT 'their 2890') (£)779 AND Loss <i>A1</i> If no marks award SC1 for interpretation GAIN and 1010 (from $3400 \div 2.86 \times 3.71$)
QWC2: Candidates will be expected to - present work clearly, with words explaining process or steps AND - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer QWC1: Candidates will be expected to - present work clearly, with words explaining process or steps OR - make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer	QWC 2	QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar OR evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar. QWC0 Evident weaknesses in organisation of material, and errors in use of mathematical form, spelling, punctuation or grammar.

14.

<u>Jewellery Boutique:</u> (Cost including VAT =) $[36 + 36 \times 20/100] \times 2$ or $[72 + 72 \times 20/100] \times 2$ or equivalent (Total cost including P & P =) (£)86.40 (+ (£)6.95) = (£)93.35 <u>Gems and Co:</u> (Total cost =) (£)55 + $1/2 \times$ (£)55 or equivalent = (£)82.50 Conclusion that 'Gems and Co' is cheaper AND by (£)10.85 Look for • relevance • spelling in at least 1 statement/sentence • clarity of text explanations, • the use of notation (watch for the use of '=', £, % being appropriate) A clear conclusion statement must be made before QWC2 can be awarded. QWC: Candidates would be expected to • clearly show how they arrived at their solution • have few errors in mathematical form, spelling, punctuation and grammar Count incorrect use of '=' in situations such as '36 $\times$ 20/100 = 7.20 + 36' within the 'errors in mathematical form'. QWC2: Candidates will be expected to • present work clearly, with words explaining process or steps AND • make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units (£) in their final answer QWC1: Candidates will be expected to • present work clearly, with words explaining process or steps OR • make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units (£) in their final answer	M1 A1 B1 M1 A1 B1 Q W C 2 8	A complete correct method for increasing by 20%. Accept sight of $2 \times$ (£)43.20 or (£)72 + (£)14.40 FT 'their £86.40' + £6.95 If M0A0, award SC1 for sight of (£)7.20 or (£)14.40 or (£)43.20. If M1A1 have been awarded, B1 can only be awarded for a fully correct total. A complete correct method. Correct total. FT only if both M1 marks are awarded. QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar OR evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar. QWC0 Evident weaknesses in organisation of material, and errors in use of mathematical form, spelling, punctuation or grammar. A final unsupported statement only gets QWC0
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15.

(Declared as <i>Gift Aid</i> = $\frac{1}{3} \times £24810 =$) (£)8270 (Claimed as <i>Gift Aid</i>) $\frac{8270}{10}$ $= 827$ $827 \times (£)2.5(0)$ $= (£)2067.5(0)$	✓ ✓ ✓ ✓ ✓	B1 M1 A1 M1 A1	For sight of (£)8270 F.T. 'their (£)8270' (even £24810) FT 'their 827' (even if not a whole number). Mark final answer for claimed amount. <u>Alternative methods.</u> (FT previous values for each M) <table><tr><td>8270</td><td>B1</td><td>2481</td><td>B1</td></tr><tr><td>8270×1.25</td><td>M1</td><td>2481×2.50</td><td>M1</td></tr><tr><td>(£)10337.50</td><td>A1</td><td>(£)6202.50</td><td>A1</td></tr><tr><td>$10337.50 - 8270$</td><td>M1</td><td>$6202.50 \div 3$</td><td>M1</td></tr><tr><td>(£)2067.50</td><td>A1</td><td>(£)2067.50</td><td>A1</td></tr></table> <table><tr><td>8270</td><td>B1</td></tr><tr><td>8270×0.25</td><td>M2</td></tr><tr><td>(£)2067.50</td><td>A2</td></tr></table>	8270	B1	2481	B1	8270×1.25	M1	2481×2.50	M1	(£)10337.50	A1	(£)6202.50	A1	$10337.50 - 8270$	M1	$6202.50 \div 3$	M1	(£)2067.50	A1	(£)2067.50	A1	8270	B1	8270×0.25	M2	(£)2067.50	A2
8270	B1	2481	B1																										
8270×1.25	M1	2481×2.50	M1																										
(£)10337.50	A1	(£)6202.50	A1																										
$10337.50 - 8270$	M1	$6202.50 \div 3$	M1																										
(£)2067.50	A1	(£)2067.50	A1																										
8270	B1																												
8270×0.25	M2																												
(£)2067.50	A2																												
Look for																													
• spelling • clarity of text explanations and correct units shown • the use of notation (watch for the use of '=', '+', '-', '×' and '÷' being appropriate)	✓ ✓	QWC 2	QWC2. Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.																										
QWC2: Candidates will be expected to																													
• present work clearly, with words explaining process or steps																													
AND																													
• make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer																													
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• present work clearly, with words explaining process or steps																													
OR																													
• make few if any mistakes in mathematical form, spelling, punctuation and grammar and include units in their final answer																													
			QWC1. Presents relevant material in a coherent and logical manner, but with some errors in use of mathematical form, spelling, punctuation or grammar. OR Evident weakness in organisation of material but using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar.																										
			QWC0. Evident weakness in organisation of material and errors in use of mathematical form, spelling, punctuation and grammar.																										
			<u>An unsupported answer is QWC0.</u>																										

16.

7. Understanding that 1litre = 10×100 ml or 1litre =1000ml Hint of pink: 800ml white, 200ml red Hint of purple: 4000ml white, 600ml blue, 400ml red Method of costing, e.g. costing correctly expressed for hint of pink or hint of purple, or equivalent or 1 correct product in the sum of 3, or 2 correct products in the sum of 5 combined calculations shown below. $48 \times 1.2(0) + 6 \times 1.3(0) + 6 \times 1.35$ (need 1 correct product in a sum of 3, using all correct paint prices) OR $8 \times 1.2(0) + 2 \times 1.35$ $+ 40 \times 1.2(0) + 6 \times 1.3(0) + 4 \times 1.35$ (need 2 correct products in a sum of 5, using all correct paint prices) $48 \times 1.2(0) + 6 \times 1.3(0) + 6 \times 1.35$, OR $8 \times 1.2(0) + 2 \times 1.35 + 40 \times 1.2(0) + 6 \times 1.3(0) + 4 \times 1.35$ (£)73.5(0) QWC2 requires process steps for both colours linked with appropriate text and correct use of units, with the £ symbol given in the final answer. If the candidate has not engaged with the complexity of the question, then maximum QWC1 if process steps for both colours is linked with appropriate text, units are generally used and £ symbol given in the final answer Must be relevant work for the problem, otherwise QWC0 Look for • relevance • spelling • clarity of text explanations, • the use of notation (watch for the units and '0' for unit pence when using £) QWC2: Candidates will be expected to • present work clearly, with words explaining process or steps AND • make few if any mistakes in mathematical form, spelling, punctuation and grammar in their final answer QWC1: Candidates will be expected to • present work clearly, with words explaining process or steps OR • make few if any mistakes in mathematical form, spelling, punctuation and grammar in their final answer	B1 May be seen or implied B1 Or sight of 8:2, or sight of 4/5 white with 1/5 red, or white and red quantities in the correct ratio seen but NOT 4 (100ml), 1 (100ml) B1 Or sight of 40:6:4, or sight of 20/25 white with, 3/25 blue and 2/25 red or equivalent, or white, blue and red quantities in the correct ratio seen but NOT 20(100ml), 3(100ml), 2(100ml) (Maybe ½ these values, then doubled) M1 N.B. The cost of hint of pink or hint of purple may be found within a combined calculation, this gets M1 (Hint of pink (£)12.3(0), hint of purple (£)61.2(0)) (Note: sight of, for example (£)12.30, triggers: B1 (1000ml = 1 litre), B1 Hint of pink ratio, and M1 for stage correct towards an overall calculation) A1 $(57.6(0) + 7.8(0) + 8.1(0))$ $(9.6(0) + 2.7(0) + 48 + 7.8(0) + 5.4(0))$ A1 CAO SC1 for £36.75, with possible first B1 for unit conversion if seen <u>Treat working with hint of blue with one of the other shades of paint as MR-1 then FT for all marks</u> (Cost of 1litre of hint of blue is £12.11, so 5litres is £60.55) QWC2 Presents relevant material in a coherent and logical manner, using acceptable mathematical form, and with few if any errors in spelling, punctuation and grammar. QWC1 Presents relevant material in a coherent and logical manner but with some errors in use of mathematical form, spelling, punctuation or grammar. OR Evident weaknesses in organisation of material but using acceptable mathematical form, with few if any errors in spelling, punctuation and grammar. QWC0 Evident weaknesses in organisation of material, and errors in use of mathematical form, spelling, punctuation and grammar.
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