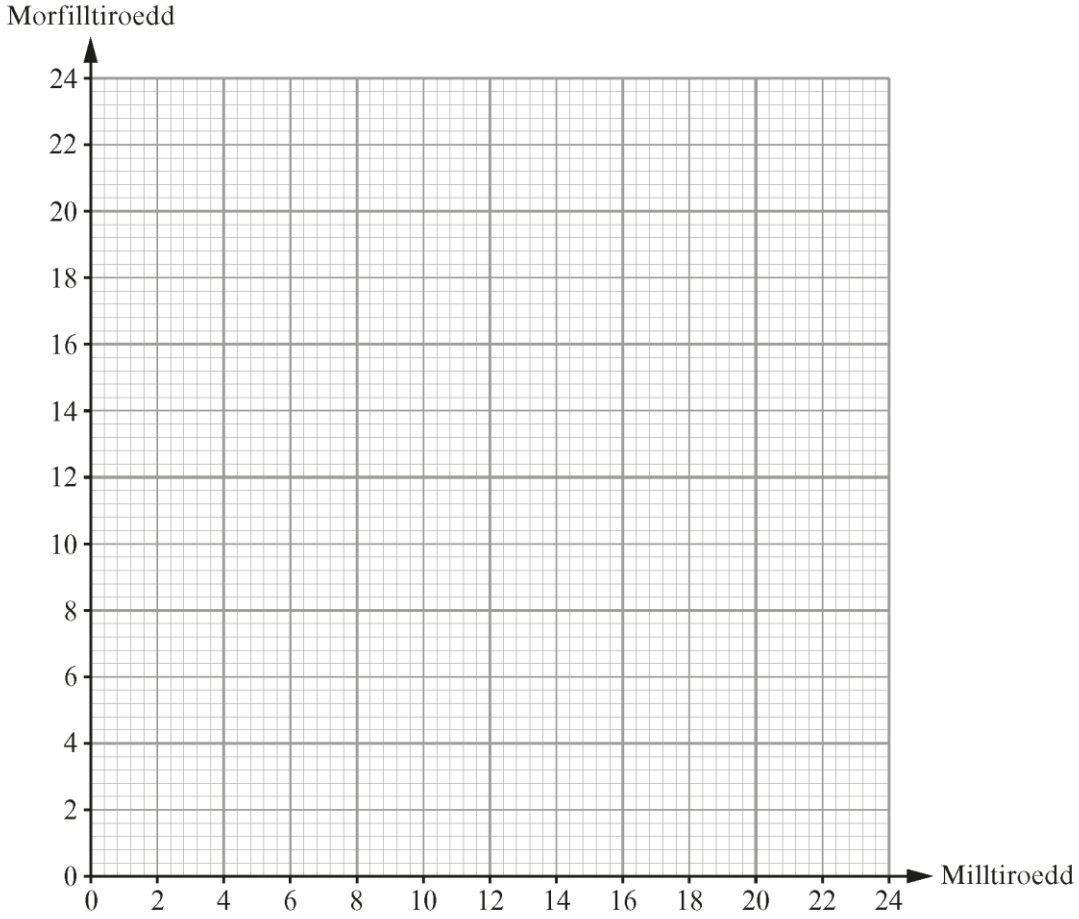
Cysylltiadau Cyfrannedd

1.

(a) Ar y môr, mae'r pellter sy'n cael ei deithio gan long yn cael ei fesur mewn morfilltiroedd *(nautical miles)* yn hytrach na milltiroedd. Mae'r tabl yn dangos nifer y milltiroedd a nifer y morfilltiroedd ar gyfer pob un o dri phellter.

Milltiroedd	8	16	23
Morfilltiroedd	7	14	20

Defnyddiwch y data yn y tabl i luniadu graff trawsnewid rhwng milltiroedd a morfilltiroedd. [2]



(b) Darganfyddwch amcangyfrif, mewn milltiroedd, ar gyfer 50 o forfilltiroedd.

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[2]

2.

Cynlluniodd Cheryl a Ben daith feicio gan ddefnyddio map â'r raddfa 1 : 25000.
Roedd y llwybr *(route)* y gwnaethon nhw ei gynllunio yn mesur tua 80 cm ar y map.

(a) Cyfrifwch yn fras pa mor bell roedden nhw'n bwriadu beicio.
Rhaid i chi roi eich ateb mewn km.

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[5]

(b) Ar ôl y daith roedd cyfrifiadur beic Cheryl yn dangos ei bod hi wedi teithio 24 km.
Beth oedd y mesuriad hwn ar y map mewn centimetrau?

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[3]

3.

Aeth Louise a Tim ar wyliau i wersyllfa *(camp site)* yn Ffrainc.

(a) Gwnaethon nhw newid £1200 yn ewros pan oedd y gyfradd gyfnewid yn £1 = 1.19 ewro.
Faint o ewros gawson nhw?

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[2]

(b) Yn ystod eu gwyliau aethon nhw ar daith undydd a gostiodd 404.60 ewro.
Beth oedd cost y daith mewn punnoedd?

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[2]

4.

Teithiodd Anwen 165 milltir mewn car.
Am ddwy awr gyntaf y daith, teithiodd hi ar draffordd ar fuanedd cyfartalog o 60 mya *(mph)*.
Am weddill y daith, teithiodd hi ar fuanedd cyfartalog o 30 mya.

Faint o amser gymerodd y daith?
Rhaid i chi ddangos eich gwaith cyfrifo. [5]

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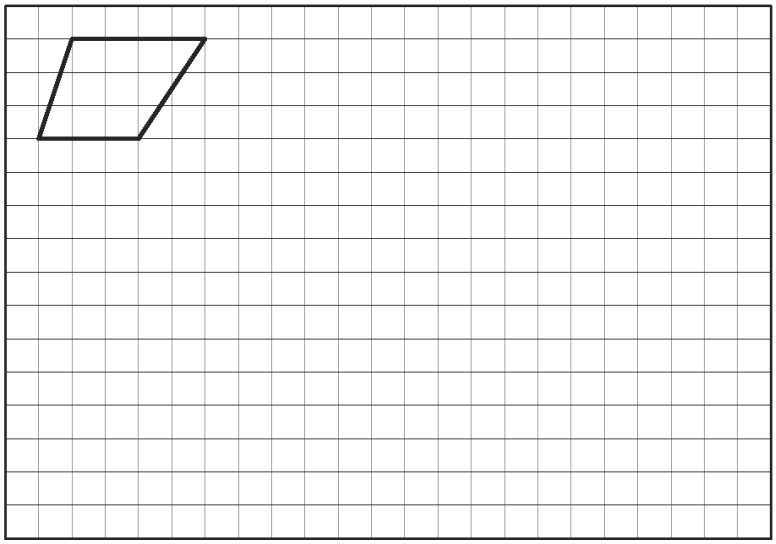
5.

(a) Helaethwch *(enlarge)* y siâp canlynol yn ôl ffactor graddfa 3. [2]



(b) Cyfaint ciwb mawr yw 216 cm^3.
Mae'n cael ei wneud o giwbiau llai sy'n mesur 2 cm wrth 2 cm wrth 2 cm.

Faint o'r ciwbiau llai sy'n cael eu defnyddio i wneud y ciwb mawr? [3]

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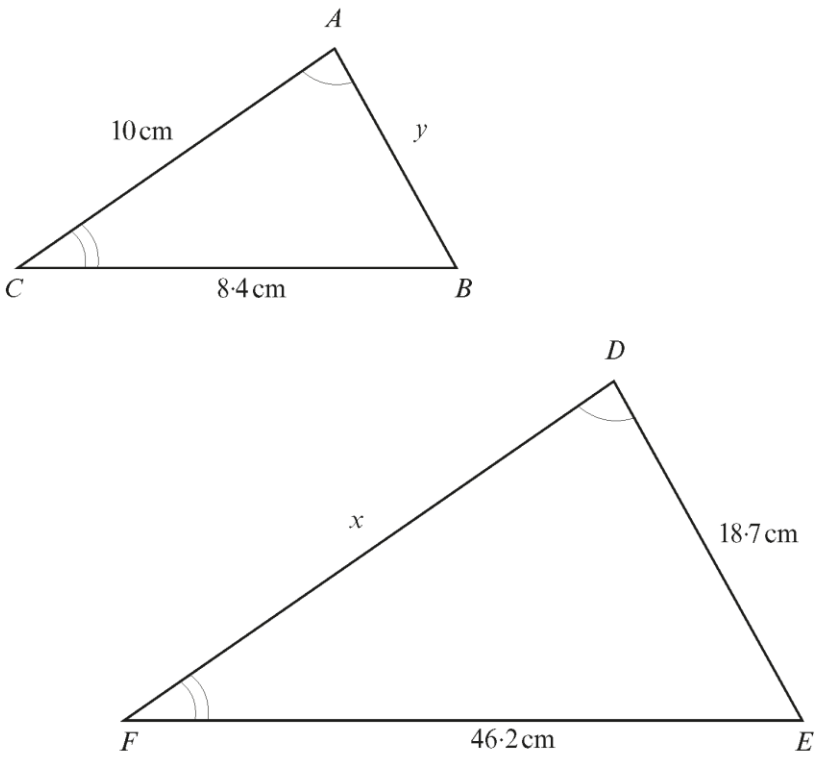
6.

Mae'r triongl ABC yn gyflun â'r triongl DEF.



Nid yw'r diagram wedi'i luniadu wrth raddfa

Cyfrifwch hydoedd x ac y.

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[4]

Cynllun Marcio

1.

10. (a)Plots	P1	**Allow ONE error** **(Accuracy is within ½ square) either side.**
Line	L1	Accept an attempt to link the 3 plotted points.
10. (b) Any correct strategy, e.g. 5 times value at 10 nautical miles	M1	Any correct method using graph or table.
58	A1	F.T. their graph. Unsupported answers in the range 54 – 61 incl. get M1, A1.

2.

7(a) Idea of scale is match of units, 1cm=25 000 cm	S1	Or equivalent initial idea
80×25000	M1	Accept sight of 80×25000 with a place value error in the 25000
= 2 000 000 (cm)	A1	Maybe embedded with change of units (20 000m) If units are given they must be correct The unit 'cm' also implies previous S1
1km = 100 000cm	B1	Or 1m = 100cm with 1000m = 1km
20 (km)	A1	If units are given they must be correct
(b) 80 cm is 20 km OR 4 cm is 1 km OR equivalent	B1	FT their 20km from (a) leading to $24 \times 80/(a)$
24×4 or equivalent	M1	
96 (cm)	A1	If units are given they must correct *Alternative: 24 (km) ÷25 000* *Unit conversion (× 100 000)* *96 (cm)* *If units are given they must correct*

3.

9. (a) euros = 1200×1.19	M1	Units are not required, but incorrect units , e.g. £1428 gets A0
= 1428 (euros)	A1	
9. (b) Pounds = 404.60/1.19	M1	Units are not required, but incorrect units , e.g. 340 euros gets A0
= (£) 340	A1	

4.

(Distance on motorway =) 2×60	M1	
= 120(miles)	A1	
(Time taken for 2nd part of journey =) $\frac{165 - 120}{30}$	M1	F.T. 'their 120'. *Note: Any incorrect conversion from 'hours' to 'hours and minutes' is A0 (or SC0).* *e.g. '1·5 hrs. = 1hr 50min or 1hr 5min'.*
= 1½ (hours) or equivalent	A1	
(Total time taken =) 3½ (hours) or equivalent.	A1	F.T. 'their 1½' + 2. If no marks gained allow SC1 for sight of 165/30 and a further SC1 for a final answer of 7½ (hours) or equivalent.
	5	

5.

Methods in Mathematics June 2015 Unit 2 Foundation Tier	Mark	Comments
7.(a) Enlargement of scale factor 3	B2	B1 for any two lines correct or 3 points correct B1 for correct enlargement using different scale factor or B1 for a 'nearly correct' enlargement using scale factor 3
(b)(2^3=) 8(cm^3) 216/8 27	M1 M1 A1 5	FT 216/'their 2^3' *Alternative method* *($\sqrt[3]{216}$=) 6 M1* *(6÷2=) 3 M1* *(3^3=) 27 A1*

6.

10. (x =) (46.2/8.4) × 10 (OR 5.5 × 10) (=) 55(cm) (y =) 18.7 ÷ (46.2/8.4) (OR 18.7/5.5) (=) 3.4(cm)	M1 A1 M1 A1	Or alternative full method to find x, x not implicit Or alternative full method to find y, y not implicit Alternatively candidates may refer to scale factor 5.5 throughout