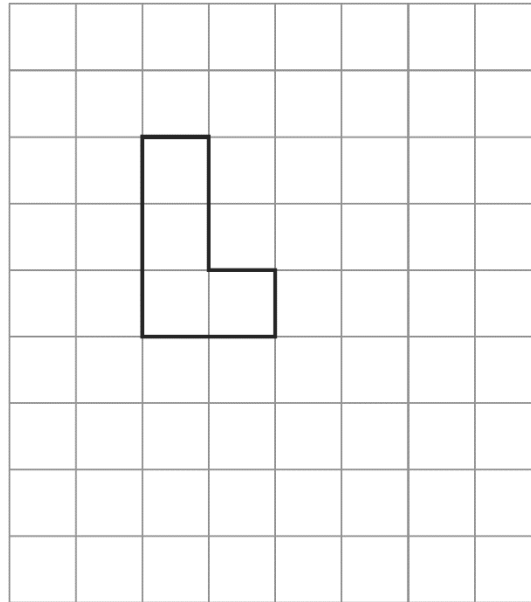


# Brithweithiau

1.

Dangoswch fod y siâp sydd wedi'i roi yn brithweithio (*tessellates*) drwy luniadu (*drawing*) mwy o'r siapiau ar y grid isod.



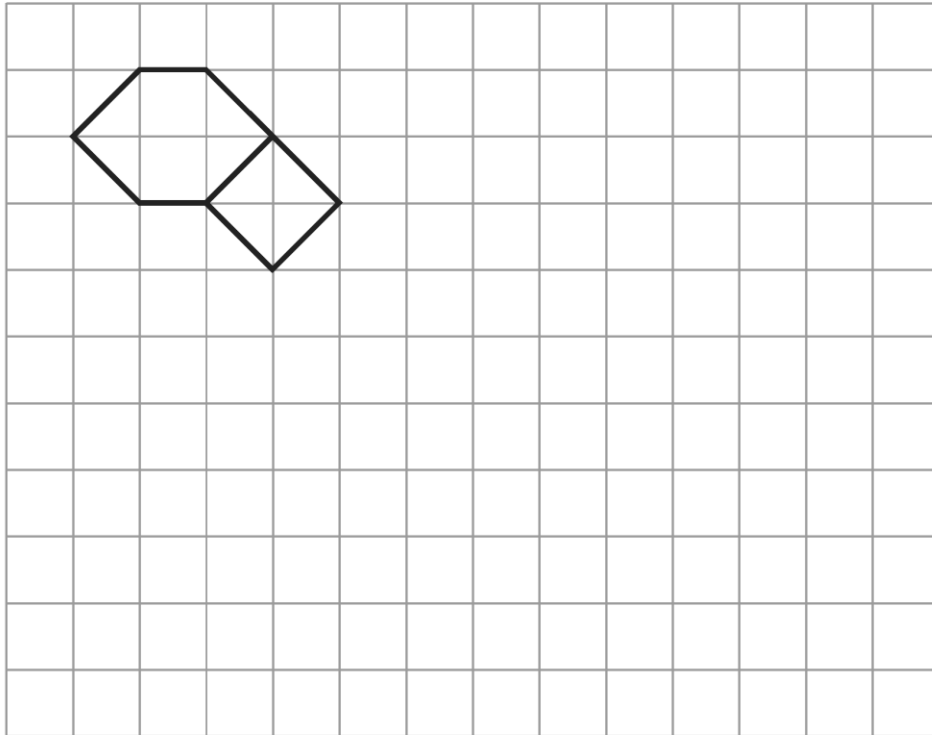
[2]

2.

Mae angen i Ben osod teils ar lawr ei gegin ac mae'n penderfynu defnyddio'r ddau fath o deils sy'n cael eu dangos yn y diagram.

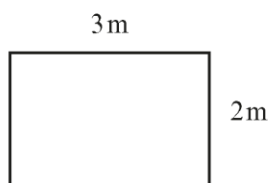
Trwy luniadu (*drawing*) mwy o deils yn y diagram, dangoswch y bydd y teils yn brithweithio (*tessellate*).

[2]



3.

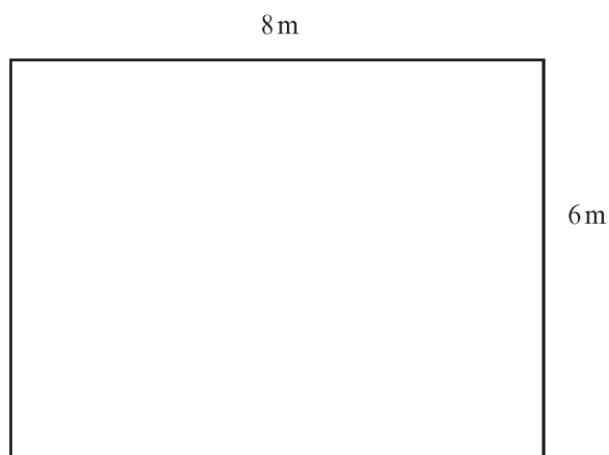
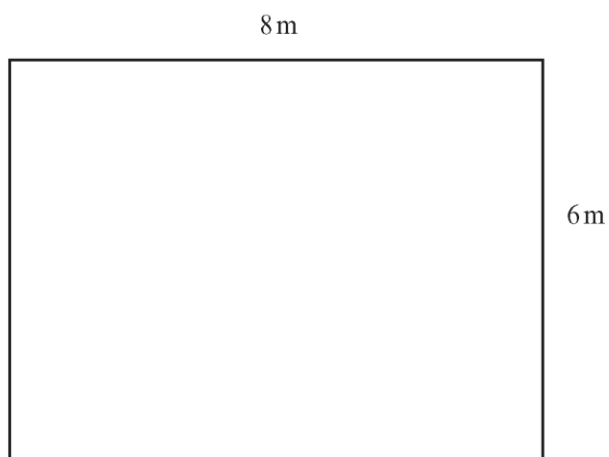
Mae pob un o deils petryal yn mesur 3 metr wrth 2 fetr.



Mae wyth o'r teils hyn yn cael eu defnyddio i orchuddio (*cover*) yn llwyr llawr petryal sy'n mesur 8 metr wrth 6 metr.

Does dim teils yn cael eu torri.

Trwy fraslunio, dangoswch ddwy **ffordd wahanol** y gall hyn gael ei wneud yn y diagramau isod.



[5]

## 4.

Mae gan Ali nifer o deils.

Mae ganddo rai teils sgwâr a rhai teils sydd ar siâp trionglau hafalochrog.

Mae hyd ymylon yr holl deils yn hafal.

Mae e'n defnyddio rhai teils o bob siâp i wneud enghraifft o frithwaith (*tessellation*).

- Brasluniwch sut gall Ali ddefnyddio teils sgwâr a theils ar siâp trionglau hafalochrog i wneud enghraifft o frithwaith.
- Gan ddefnyddio'r hyn rydych chi'n ei wybod am ffeithiau onglau, eglurwch pam mae hyn yn enghraifft o frithwaith.  
Rhaid i chi gynnwys o leiaf un deilsen o bob siâp a dangos eich holl waith cyfrifo.

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[4]

# Cynllun Marcio

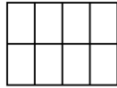
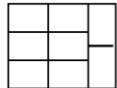
1.

9. At least 6 additional given shapes tessellating correctly For B2 the tessellation must be in more than one direction. (ie a cluster)	B2  2	Award B1 for at least 3 additional given shapes tessellating correctly with at least one that meets the given shape
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2.

9. At least 3 additional given shapes tessellating correctly with at least one that meets given shapes At least 6 additional given shapes tessellating correctly	M1  A1 2	The additional shapes must consist of at least 1 square <b>and</b> 1 hexagon. Award A0 for any error in their tessellation.
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3.

7.			<p><i>If both of the two <u>different</u> ways shown are of the sort which could gain a B3 then allow B3 in the first instance and B2 for the second one.</i></p>
	✓	B2	<p>B1 for strategy of <math>2+2+2+2 = 8</math> OR <math>3+3 = 6</math>. BUT B0 if more than 8 tiles shown. B0 if any inconsistent matching of tile sides (e.g. implying <math>2m = 3m</math>).</p>
	✓ ✓ ✓	B3	
			<p>Or equivalent. B1 for strategy <math>2+2+2 = 6</math>. B1 for strategy <math>3+3+2 = 8</math>. BUT B0 if more than 8 tiles shown. B0 if any inconsistent matching of tile sides (e.g. implying <math>2m = 3m</math>).</p>

4.

7. An example of a tessellation covering a space having an element of a <u>repeating</u> pattern with at least one $360^\circ$ point formed by using both of the shapes of tiles	B2	B1 for an example of a tessellation covering a space with at least one $360^\circ$ point formed by using <b>both</b> of the shapes of tiles.
Use of angles at a point is $360^\circ$	B1	Accept sight of knowledge that angles at a point is $360^\circ$
Shows sum to $360^\circ$ including at least one $90^\circ$ and at least one $60^\circ$	B1  4	Accept if implied, e.g. '2 squares $180^\circ$ and 3 (isosceles) triangles $180^\circ$ '