

Graffiau Eraill (Haen Uwch)

1.

Mae'r tabl yn dangos rhai o werthoedd $y = x^3 + 6$ ar gyfer gwerthoedd x o -2 i 3 .

(a) Cwblhewch y tabl drwy ddarganfod gwerth y ar gyfer $x = -1$ ac $x = 2$. [2]

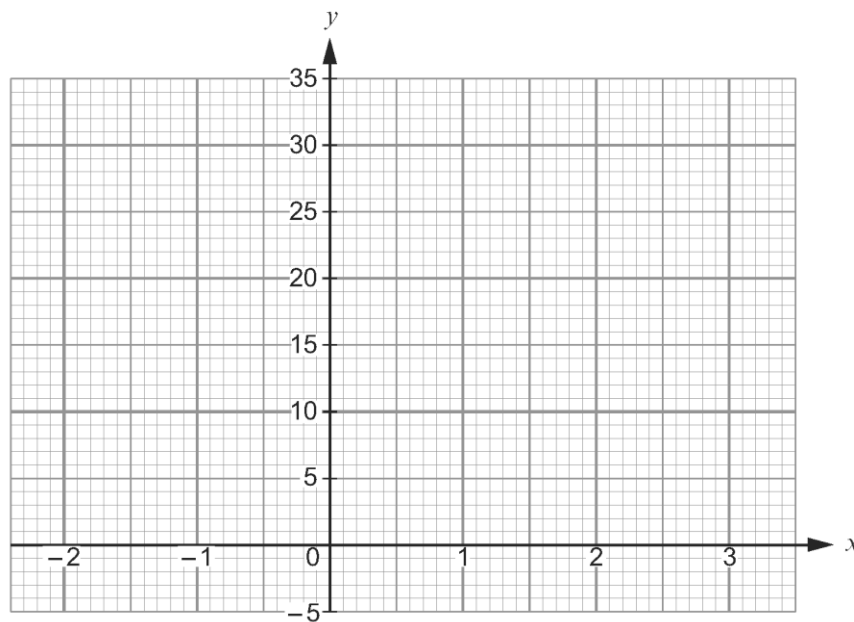
x	-2	-1	0	1	2	3
$y = x^3 + 6$	-2		6	7		33

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(b) Ar y papur graff isod, lluniadwch graff $y = x^3 + 6$ ar gyfer gwerthoedd x o -2 i 3 . [2]



(c) Mae Faye eisiau datrys yr hafaliad $x^3 + 6 = 10$ drwy dynnu llinell ar y graff uchod yn gyntaf.
Dangoswch sut byddai Faye yn gwneud hyn ar y graff uchod.
Does dim angen i chi ddarganfod datrysiad yr hafaliad. [1]

2.

Mae'r tabl isod yn dangos rhai o werthoedd $y = x^3 - 3x + 4$ ar gyfer gwerthoedd x o -3 i 3 .

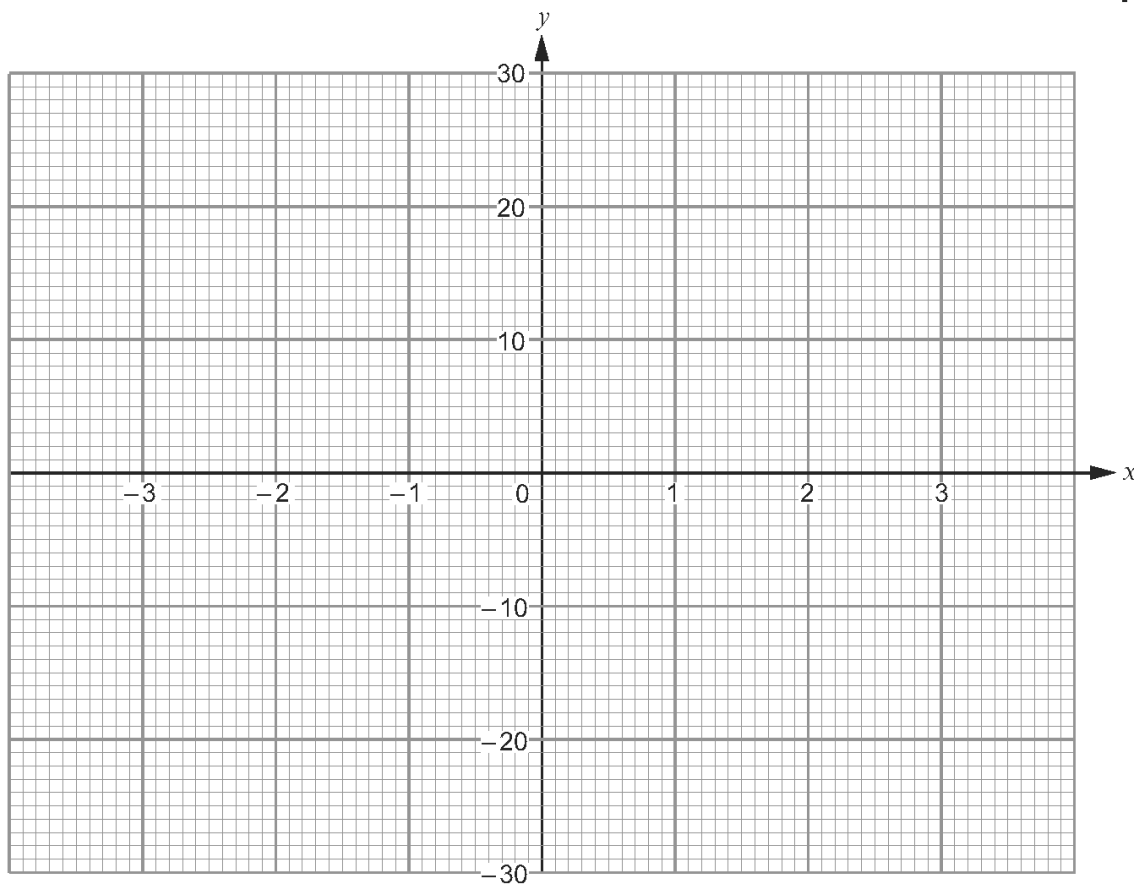
x	-3	-2	-1	0	1	2	3
$y = x^3 - 3x + 4$	-14		6	4	2	6	

(a) Cwblhewch y tabl uchod. [2]

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(b) Ar y papur graff isod lluniadwch graff $y = x^3 - 3x + 4$ ar gyfer gwerthoedd x o -3 i 3 . [2]



(c) Defnyddiwch eich graff i ysgrifennu cyfesurynnau'r ddau bwynt lle mae'r graddiant yn sero. [2]

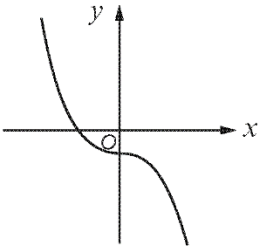
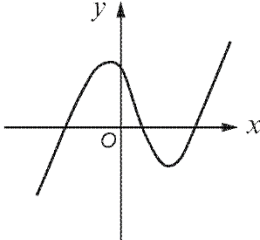
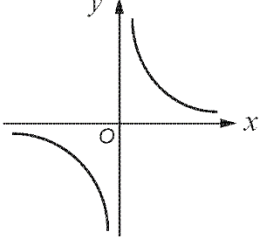
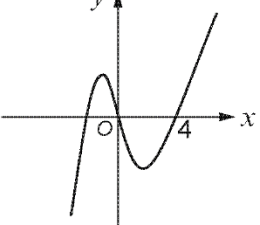
(.....,) (.....,)

(ch) Defnyddiwch eich graff i ysgrifennu datrysiad yr hafaliad $x^3 - 3x + 4 = 0$. [1]

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3.

Rhowch gylch o amgylch naill ai CYWIR neu ANGHYWIR ar gyfer pob gosodiad isod. [2]

GRAFF	GOSODIAD	
	<p>Gallai hafaliad y graff hwn fod yn $y = -x^3 - 2$.</p>	<p>CYWIR ANGHYWIR</p>
	<p>Gallai hafaliad y graff hwn fod yn $y = x^3 - 9x$.</p>	<p>CYWIR ANGHYWIR</p>
	<p>Gallai hafaliad y graff hwn fod yn $y = x^{-1}$.</p>	<p>CYWIR ANGHYWIR</p>
	<p>Gallai hafaliad y graff hwn fod yn $y = x^3 + 4$.</p>	<p>CYWIR ANGHYWIR</p>

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4.

Cysylltwch bob un o'r graffiau sy'n cael eu dangos isod â hafaliad o'r rhestr ganlynol. [3]

$$y = x^2 + 1$$

$$y = x^2 - 1$$

$$y = x^3 + 1$$

$$y = x^3 - 1$$

$$y = -x^3$$

$$y = -x^2$$

$$y = -x^2 + 1$$

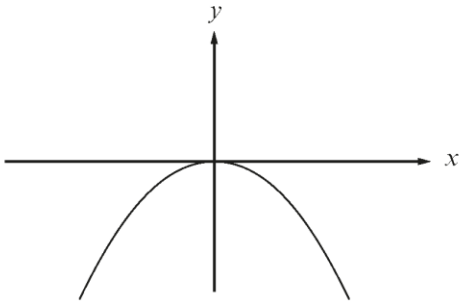
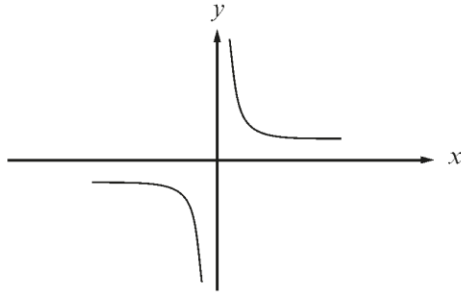
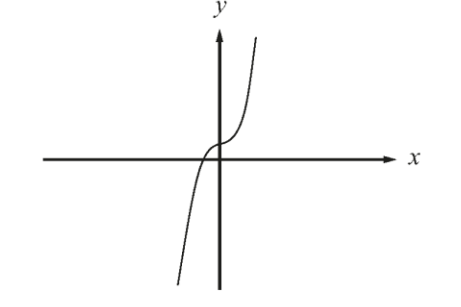
$$y = -x^3 + 1$$

$$y = \frac{1}{x}$$

$$y = \frac{-1}{x}$$

$$y = x$$

$$y = -x$$

	$y = \dots\dots\dots$
	$y = \dots\dots\dots$
	$y = \dots\dots\dots$

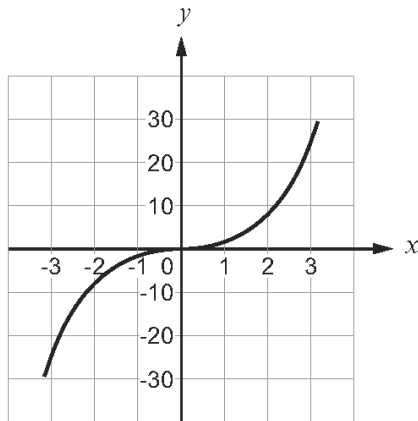
5.

Cysylltwch bob un o'r graffiau sy'n cael eu rhoi isod ag un o'r hafaliadau posibl sy'n cael eu dangos isod.

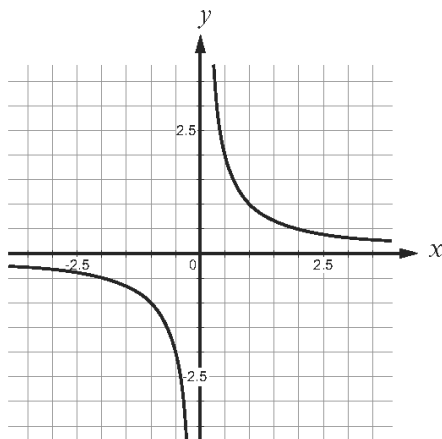
Hafaliadau posibl:

$y = x$	$y = x^2$	$y = x^3$	$y = \frac{1}{x}$	$y = -x$	$y = -x^2$
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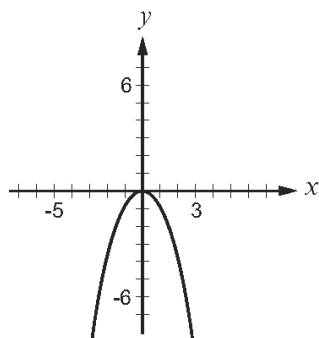
Graffiau



Hafaliad: [1]



Hafaliad: [1]



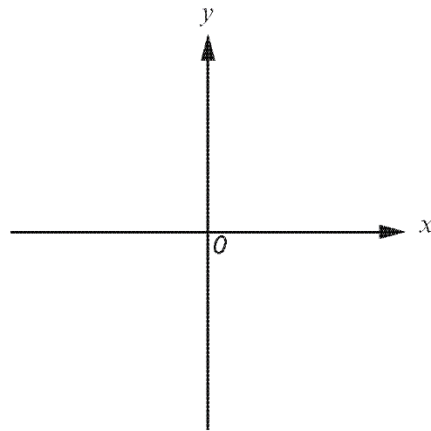
Hafaliad: [1]

6.

- (a) Defnyddiwch yr echelinau isod i fraslunio'r graffiau sy'n cael eu cynrychioli gan bob un o'r hafaliadau canlynol.

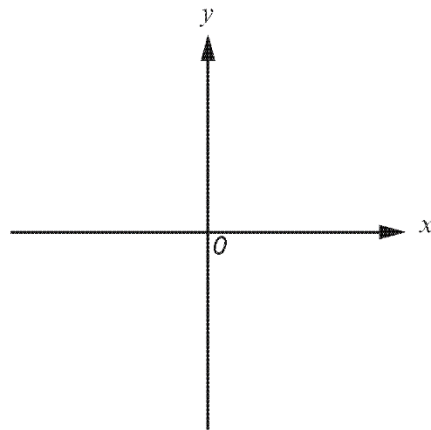
(i) $y = x^2$

[1]

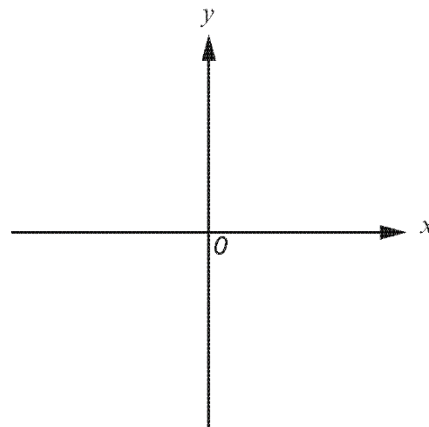


(ii) $y = \frac{1}{x}$

[2]



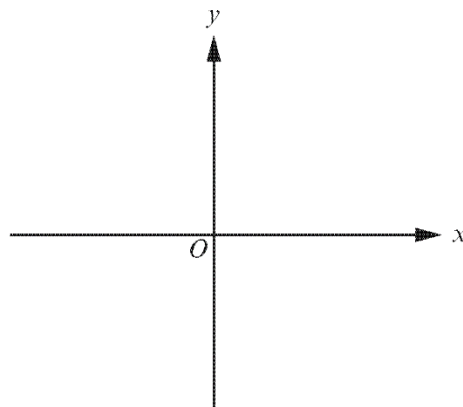
- (b) Defnyddiwch yr echelinau isod i fraslunio'r graff $y = 2^x$. Rhaid i chi roi cyfesurynnau unrhyw bwynt lle mae eich braslun yn croestorri echelin. [2]



7.

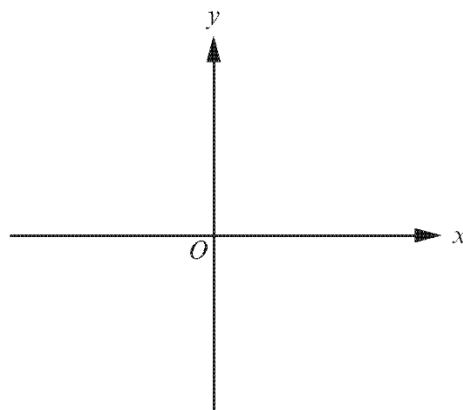
(a) Defnyddiwch yr echelinau sydd wedi'u darparu i fraslunio'r graffiau ar gyfer y canlynol.

(i) $y = x^3$



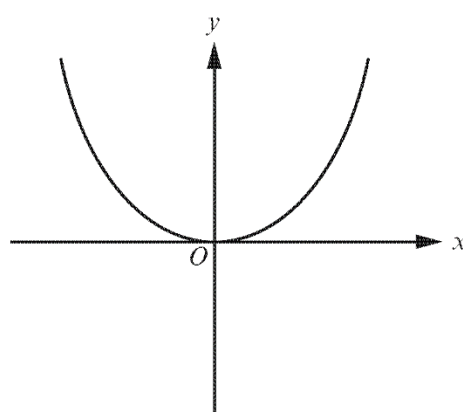
[1]

(ii) $y = \frac{1}{x}$



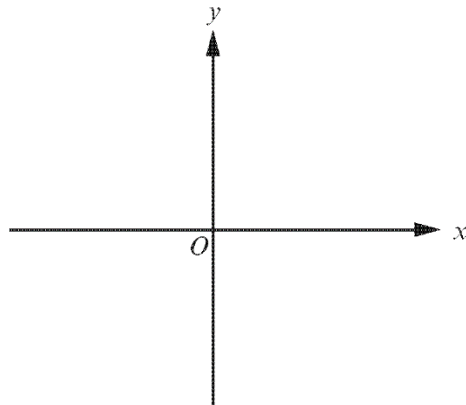
[1]

(b) Mae'r braslun isod yn dangos $y = x^2$



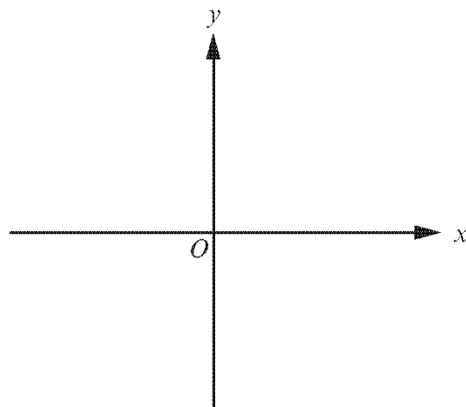
Defnyddiwch yr echelinau sydd wedi'u darparu i fraslunio'r graffiau ar gyfer y canlynol. Rhowch gyfesurynnau unrhyw bwyntiau lle mae'r graffiau'n croestorri'r echelin y .

(i) $y = -x^2$



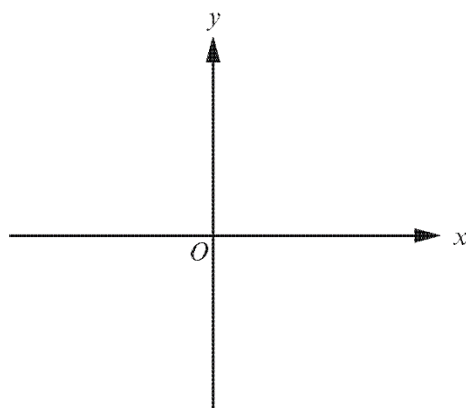
[1]

(ii) $y = x^2 + 3$



[2]

(iii) $y = 8x^2$



[1]