

## **Sgiliau Cymhwyso Rhif Hanfodol Lefel 2**

### **Prawf cadarnhaol enghreifftiol**

Amser i'w gwblhau: 60 munud

**Mae'r prawf cadarnhaol hwn yn cynnwys 30 cwestiwn amlddewis.**

# Level 3 Essential Application of Number Skills

## Sample confirmatory test 3

Maximum duration: 60 minutes

### **Important note**

This is a sample confirmatory test for the reviewed qualification for September 2022, developed jointly by the four Essential Skills Wales awarding bodies (Agored Cymru, City & Guilds, Pearson and WJEC).

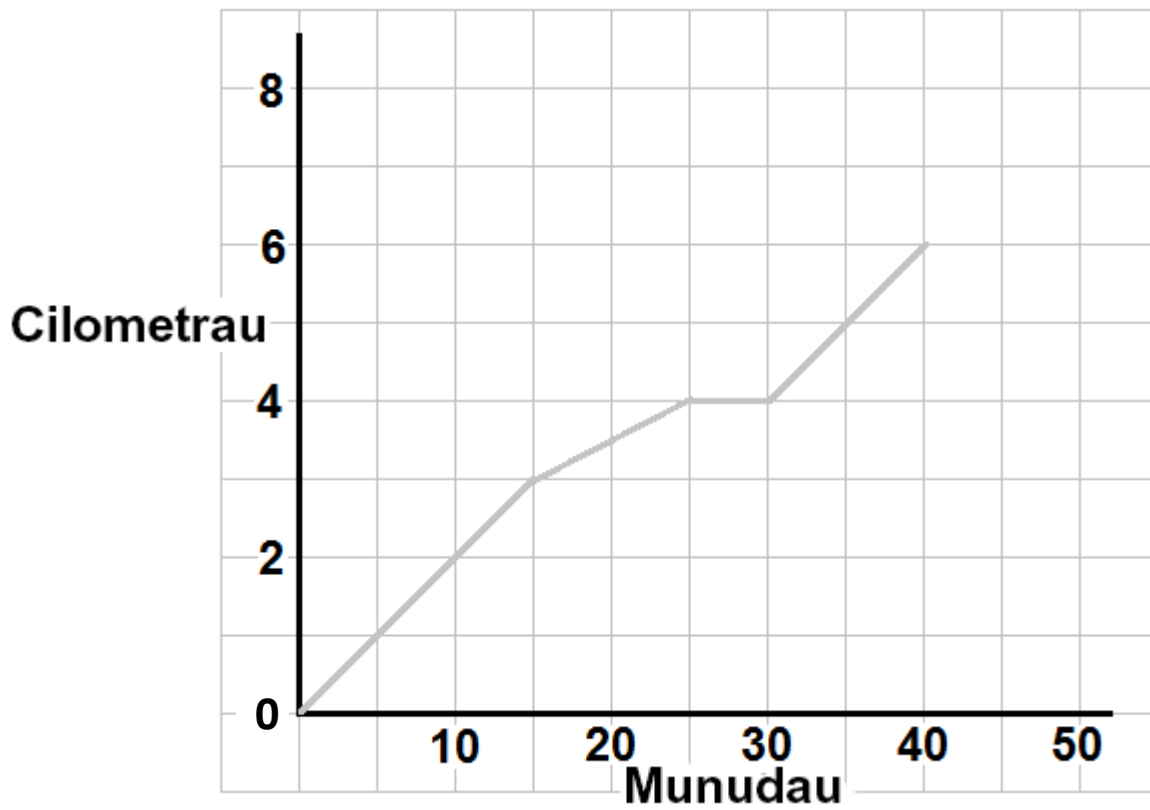
This sample test is an update of sample set 3. It has been updated to reflect the revision to the Design Principles to be implemented in 2022.

A separate document, containing the answer keys and specification references is also available.

**This confirmatory test consists of 30 multiple choice questions.**

**Mae cwestiynau 1 i 3 yn sôn am redeg.**

1 Mae'r graff hwn yn dangos y pellter a gafodd ei redeg a'r amser a gymerodd rhedwr.

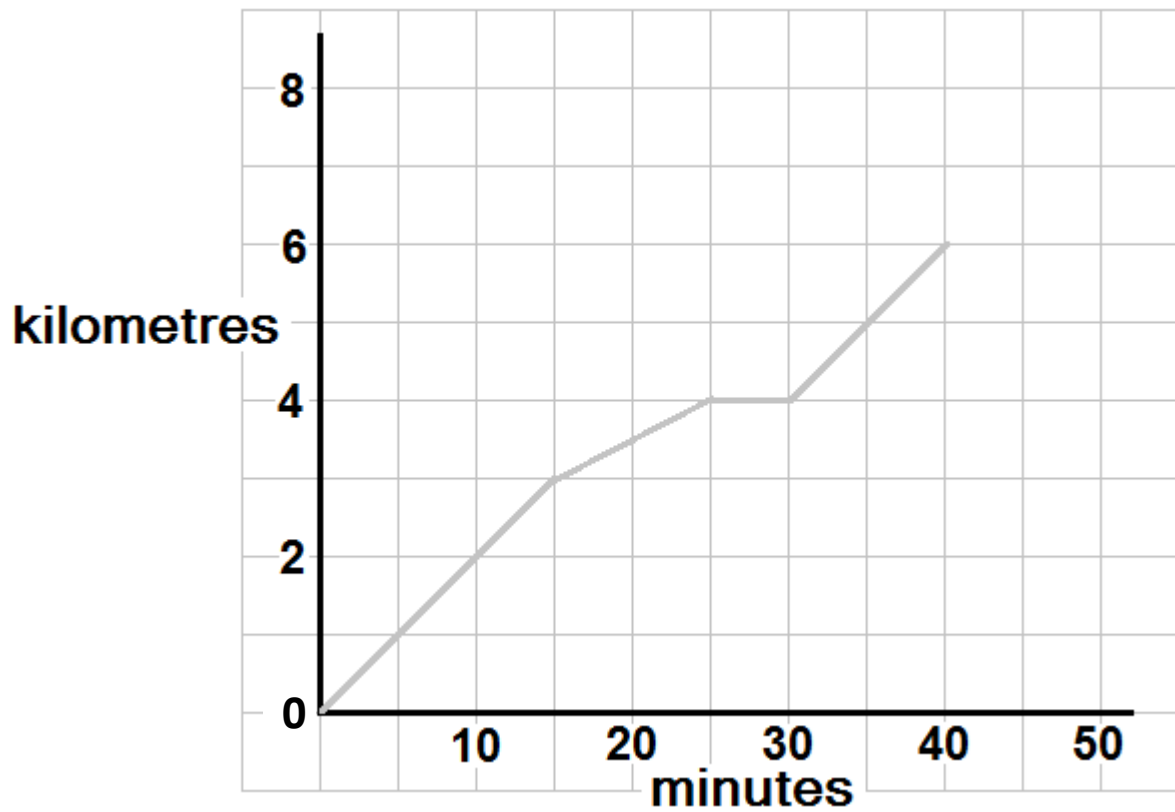


Beth oedd cyflymder cyfartalog y rhedwr am y 30 munud cyntaf?

- a 8 km/h
- b 7.5 km/h
- c 5 km/h
- d 2.5 km/h

Questions 1 to 3 are about running.

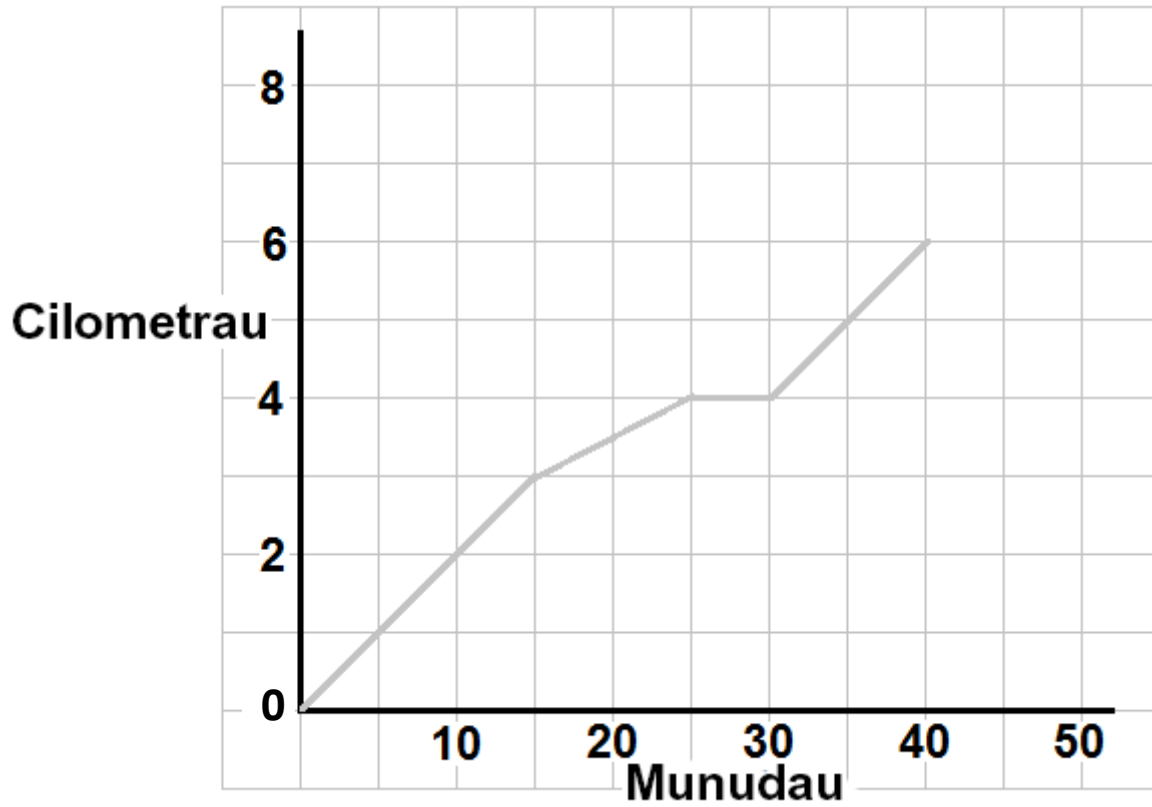
1 This graph shows the distance run and the time taken by a runner.



What was the average speed of the runner for the first 30 minutes?

- a 8 km/h
- b 7.5 km/h
- c 5 km/h
- d 2.5 km/h

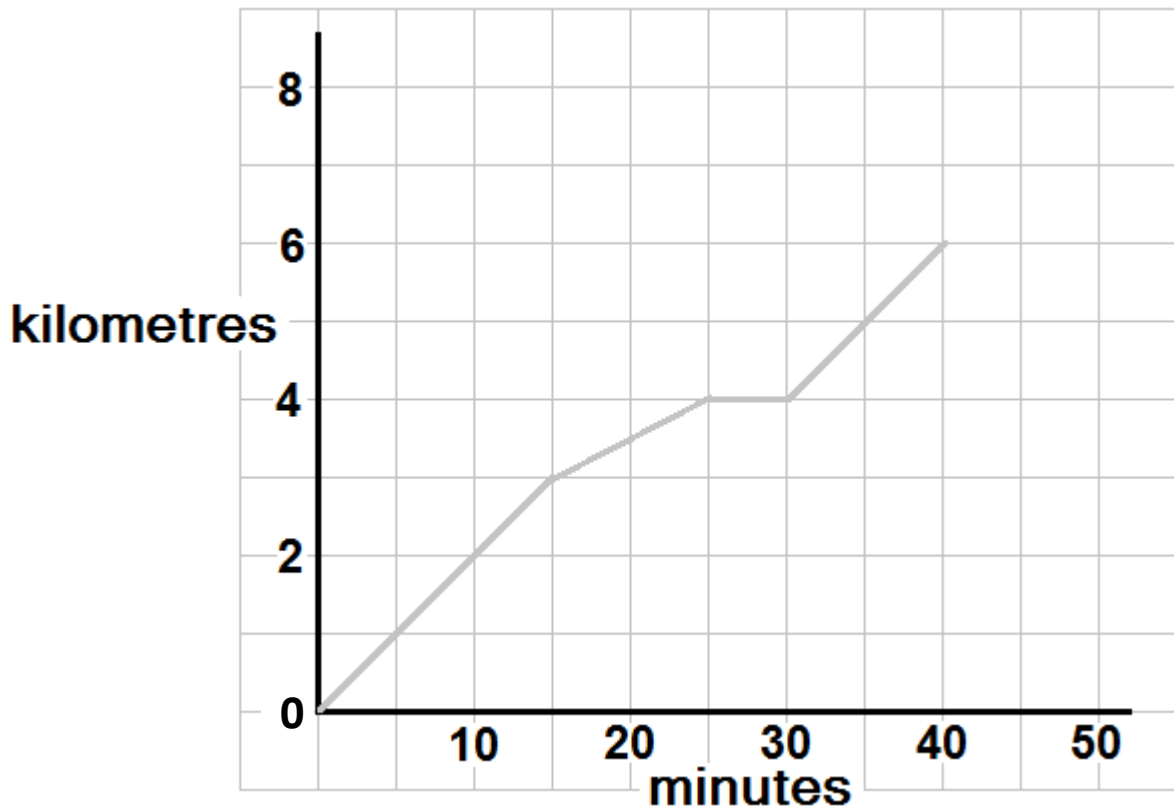
2 Mae'r graff hwn yn dangos y pellter a gafodd ei redeg a'r amser a gymerodd rhedwr.



Beth oedd cyflymder cyflymaf y rhedwr ar y rhediad hwn, mewn metrau fesul munud?

- a 20 m/mun
- b 50 m/mun
- c 150 m/mun
- d 200 m/mun

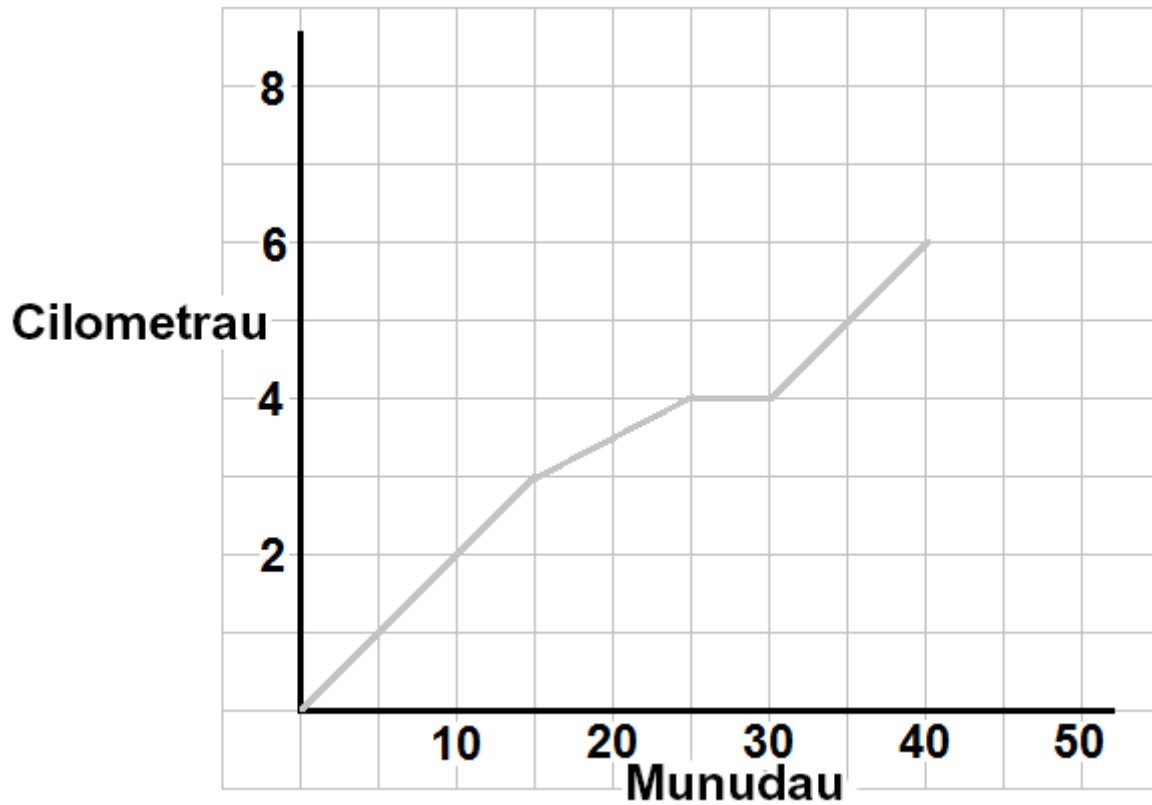
2 This graph shows the distance run and the time taken by a runner.



What was the runner's fastest speed on this run, in metres per minute?

- a 20 m/min
- b 50 m/min
- c 150 m/min
- d 200 m/min

3 Mae'r graff hwn yn dangos y pellter a gafodd ei redeg a'r amser a gymerodd rhedwr.



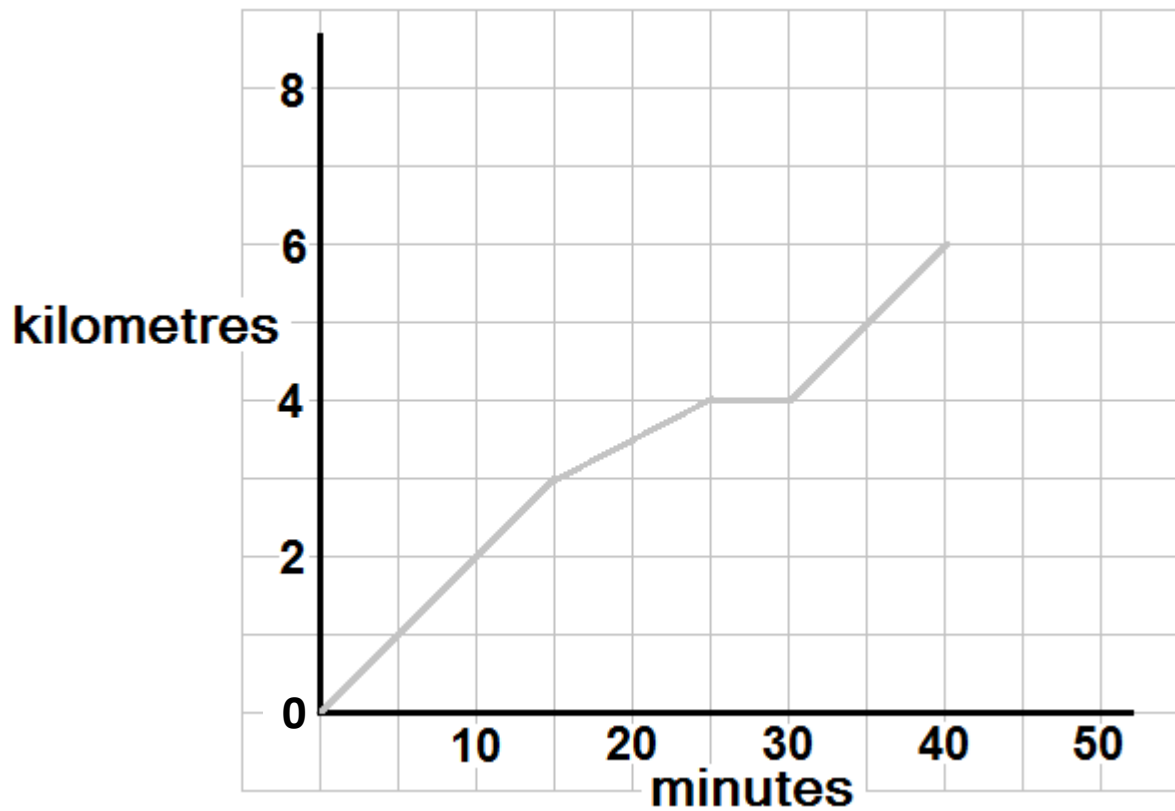
Rhwng y 40<sup>fed</sup> a'r 50<sup>fed</sup> munud, cyflymder y rhedwr yw 9 km yr awr.

Mae'n stopio rhedeg ar y 50<sup>fed</sup> munud.

Beth yw cyfanswm pellter y rhediad?

- a 7.5 km
- b 7.75 km
- c 8 km
- d 8.5 km

3 This graph shows the distance run and the time taken by a runner.



Between the 40th and 50th minute, the runner's speed is 9 km per hour.  
He stops running at the 50th minute.

What is the total distance that he runs?

- a 7.5 km
- b 7.75 km
- c 8 km
- d 8.5 km

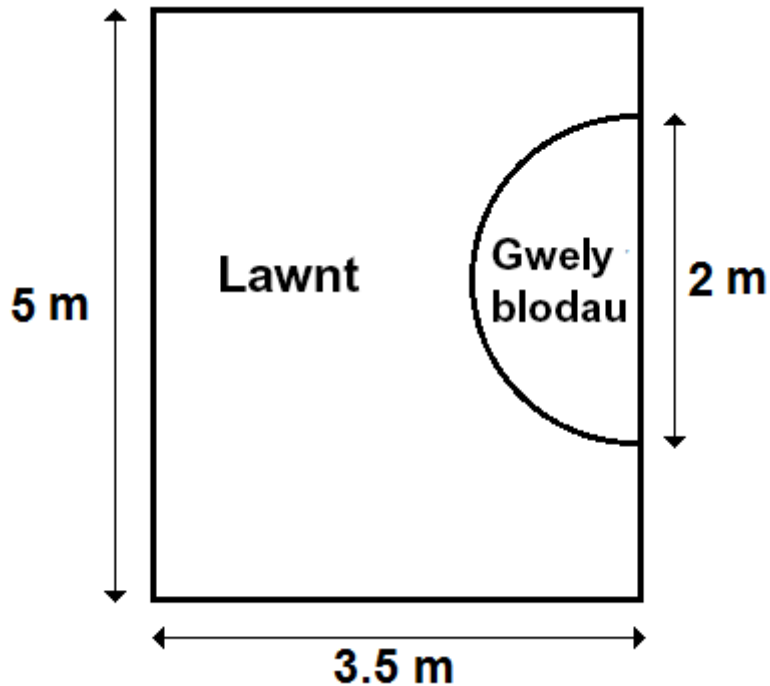


Mae cwestiynau 4 i 6 yn sôn am arddio.

4 Dyma gynllun o ardd.

Mae'r gwely blodau ar ffurf hanner cylch.

**NID** yw'r diagram wedi'i luniadu'n fanwl gywir



$$\text{Arwynebedd cylch} = \pi r^2$$
$$\pi = 3$$
$$r = \text{radiws}$$

Beth yw arwynebedd y lawnt?

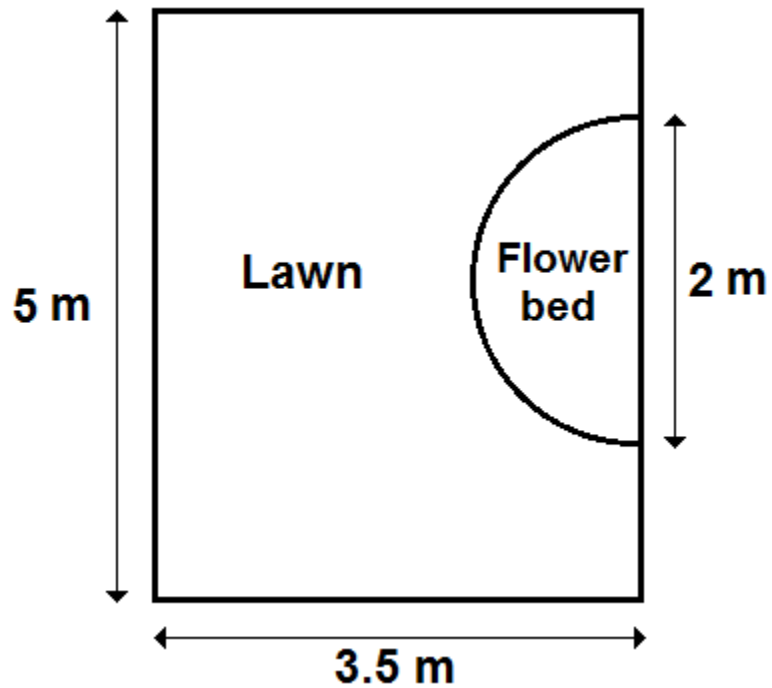
- a 13 m<sup>2</sup>
- b 14.5 m<sup>2</sup>
- c 16 m<sup>2</sup>
- d 16.5 m<sup>2</sup>

Questions 4 to 6 are about gardening.

4 This is a plan of a garden.

The flower bed is a semicircle.

Diagram **NOT**  
accurately drawn



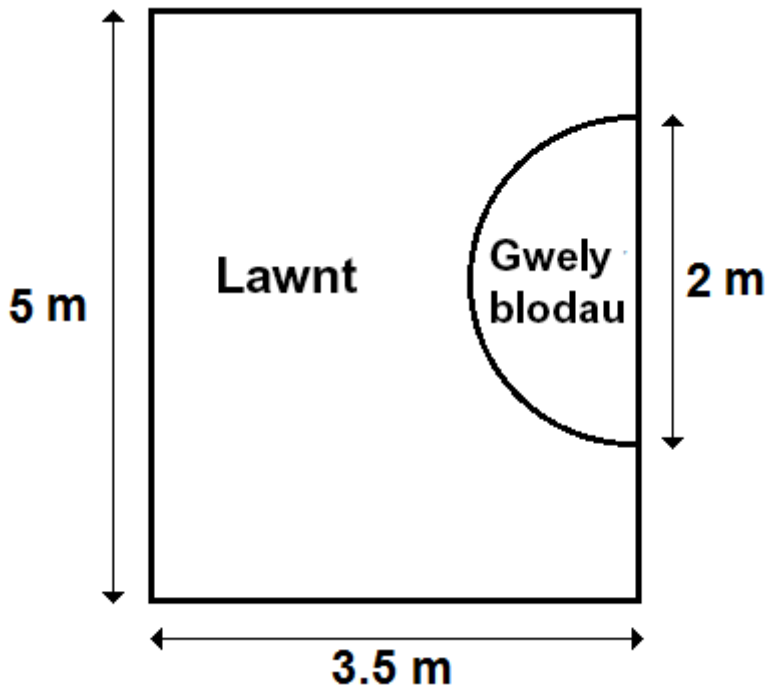
$$\text{Area of a circle} = \pi r^2$$
$$\pi = 3$$
$$r = \text{radius}$$

What is the area of the lawn?

- a  $13 \text{ m}^2$
- b  $14.5 \text{ m}^2$
- c  $16 \text{ m}^2$
- d  $16.5 \text{ m}^2$

5 Dyma gynllun o ardd.

Mae'r gwely blodau ar ffurf hanner cylch.



**NID** yw'r diagram wedi'i luniadu'n fanwl gywir

Mae angen ymyl lawnt o amgylch rhan grom y gwely blodau.

$$\text{Perimedwr cylch} = 2 \pi r$$

$$\pi = 3$$

$r$  = radiws

Mae'r ymyl lawnt yn costio £2.25 fesul metr.

Beth yw cyfanswm y gost ar gyfer yr ymyl lawnt?

- a £3.38
- b £6.00
- c £6.75
- d £13.50

5 This is a plan of a garden.

The flower bed is a semicircle.

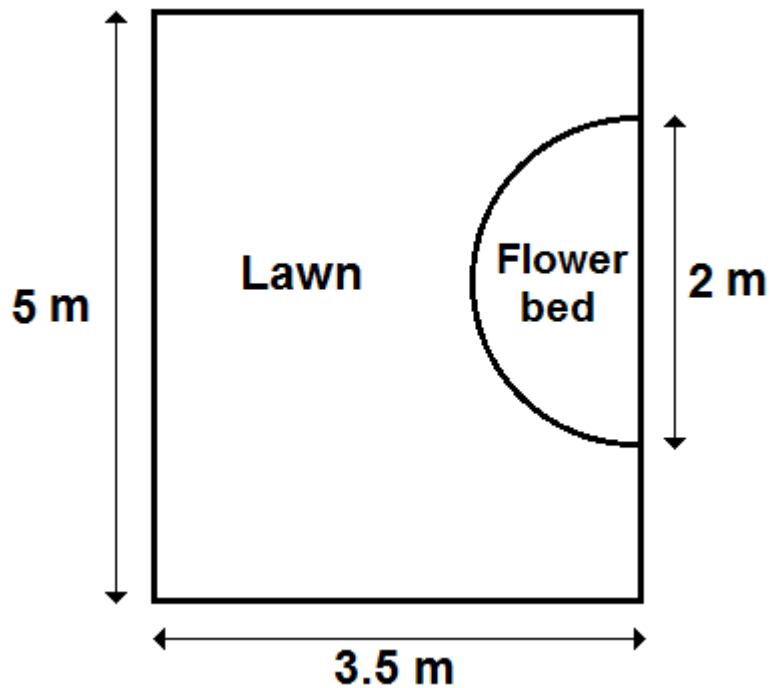


Diagram **NOT** accurately drawn

Lawn edging is needed around the curved part of the flower bed.

$$\begin{aligned} \text{Perimeter of a circle} &= 2 \pi r \\ \pi &= 3 \\ r &= \text{radius} \end{aligned}$$

The lawn edging costs £2.25 per metre.

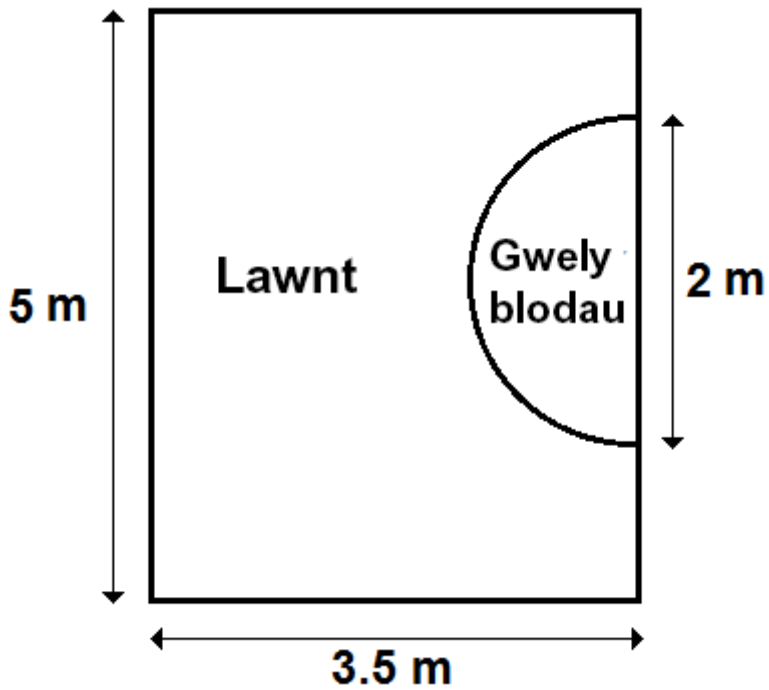
What is the total cost for the lawn edging?

- a £3.38
- b £6.00
- c £6.75
- d £13.50

6 Mae'r cynllun o'r ardd wedi'i luniadu wrth raddfa o 1 : 60.

Bydd mainc ardd yn cael ei hychwanegu at y cynllun.

Mae'r fainc ardd go iawn yn 1.5 metr o hyd.



**NID** yw'r diagram wedi'i luniadu'n fanwl gywir

Pa mor hir yw'r fainc ardd ar y diagram?

- a 2.5 mm
- b 25 mm
- c 50 mm
- d 90 mm

6 The plan of the garden is drawn to a scale of 1 : 60

A garden bench is to be added to the plan.

The actual garden bench is 1.5 metres long.

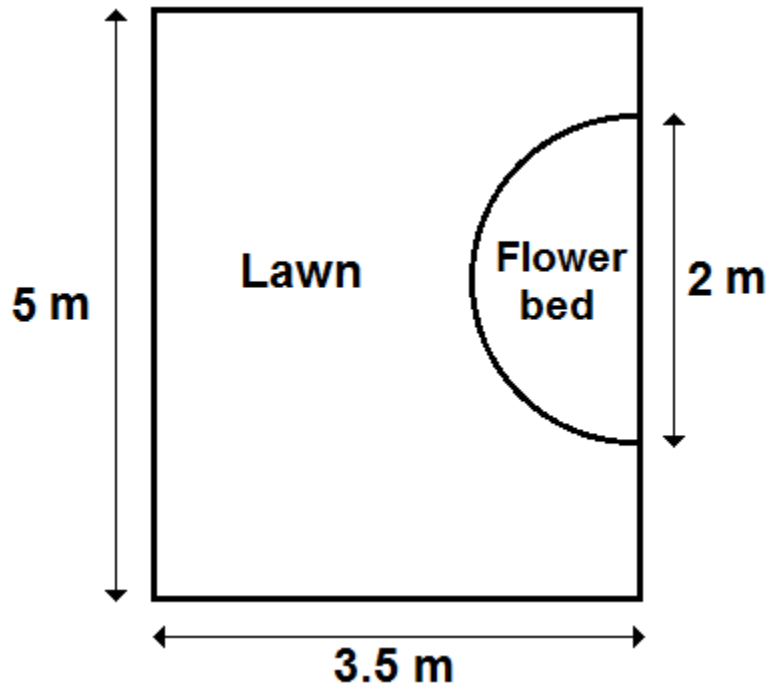


Diagram **NOT** accurately drawn

How long is the garden bench on the diagram?

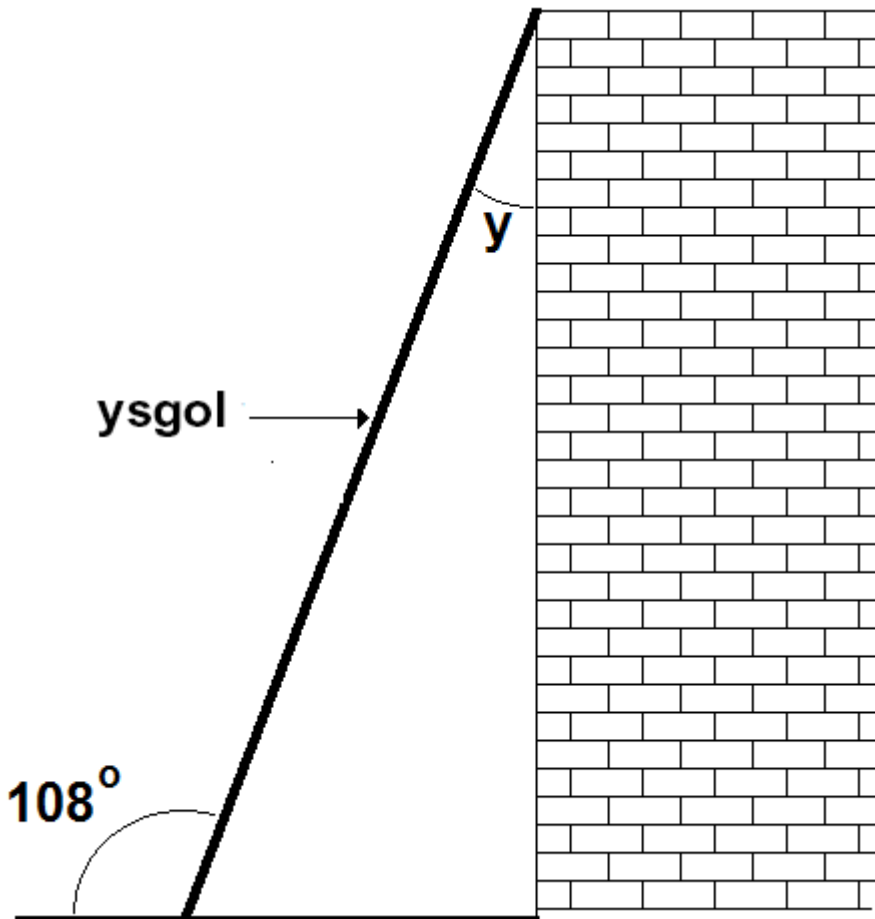
- a 2.5 mm
- b 25 mm
- c 50 mm
- d 90 mm

Mae cwestiynau 7 i 9 yn sôn am ddefnyddio ysgol.

7 Mae'r ysgol yn gorffwys yn erbyn top wal.

Dyma'r diagram o'r ysgol a'r wal.

**NID** yw'r diagram wedi'i luniadu'n fanwl gywir



Beth yw ongl  $y$ ?

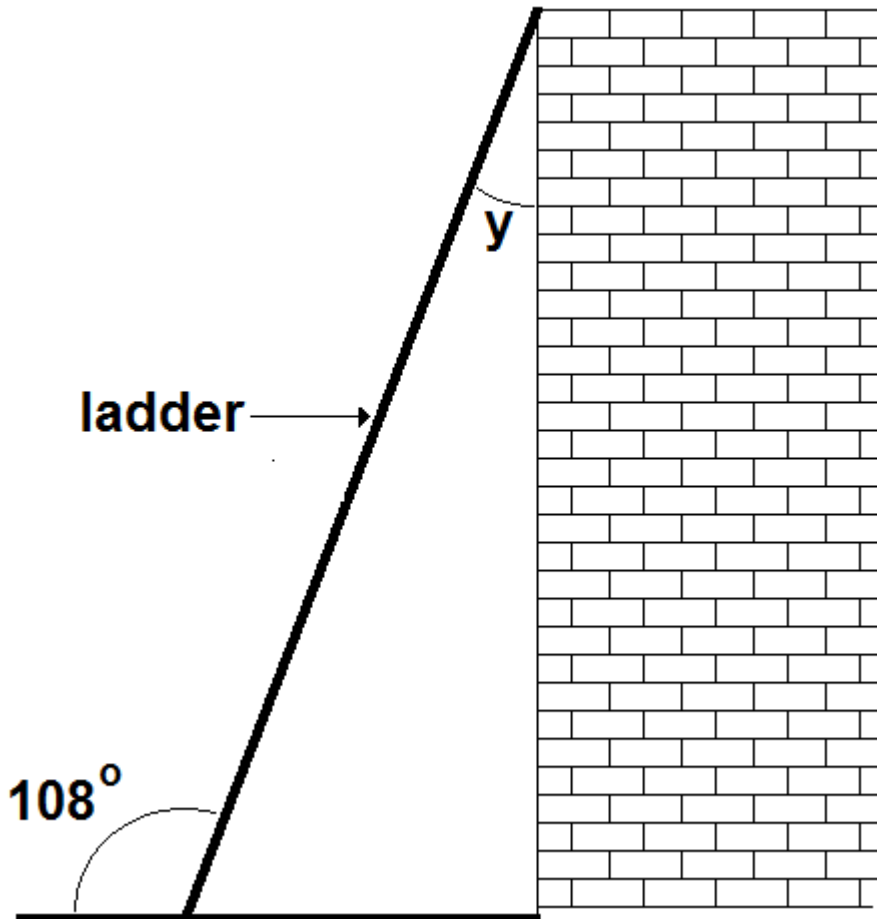
- a  $8^\circ$
- b  $12^\circ$
- c  $18^\circ$
- d  $28^\circ$

Questions 7 to 9 are about using a ladder.

7 The ladder rests against the top of a wall.

This is the diagram of the ladder and the wall.

Diagram **NOT**  
accurately drawn



What is the angle  $y$ ?

- a  $8^\circ$
- b  $12^\circ$
- c  $18^\circ$
- d  $28^\circ$



8 This is a diagram of a step ladder.

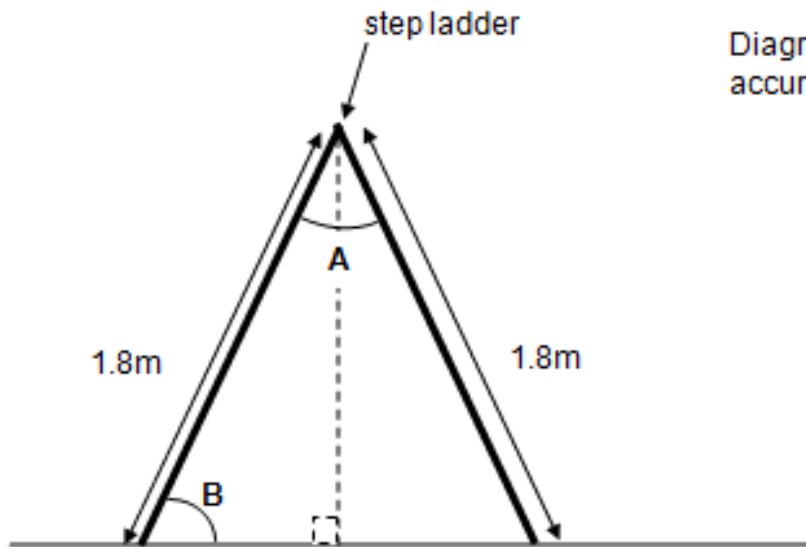


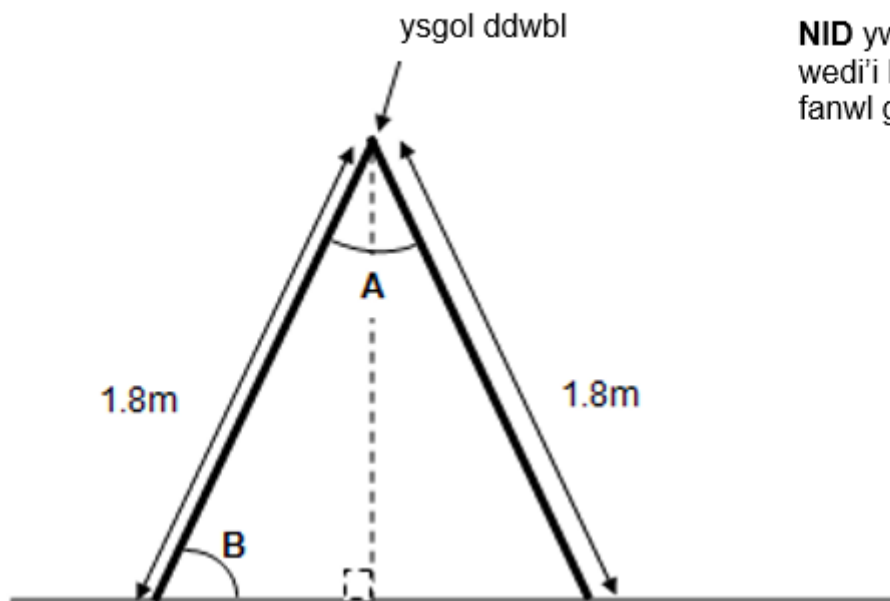
Diagram **NOT** accurately drawn

Angle A on the diagram is  $40^\circ$

What is the size of angle B?

- a  $25^\circ$
- b  $50^\circ$
- c  $65^\circ$
- d  $70^\circ$

8 Dyma ddiagram o ysgol ddwbl (*step ladder*).



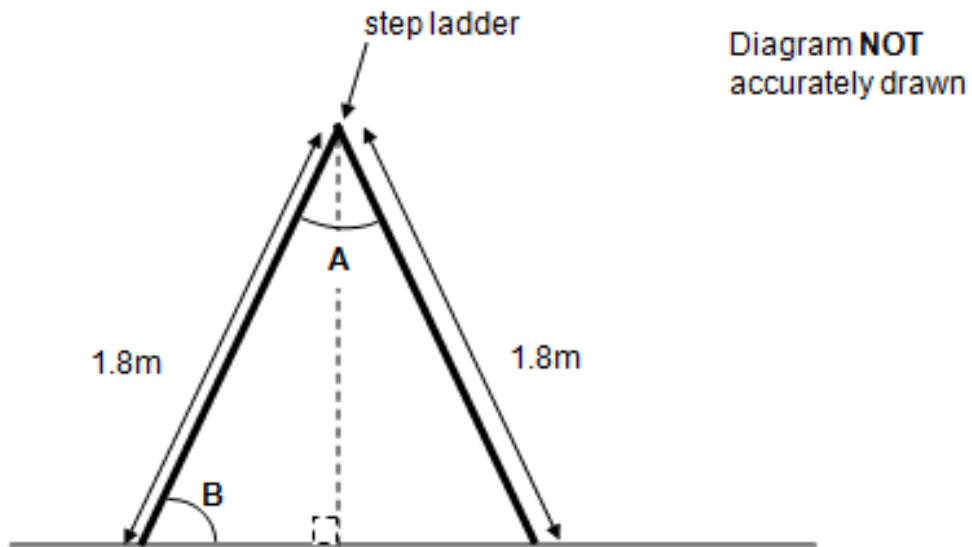
**NID** yw'r diagram wedi'i luniadu'n fanwl gywir

$40^\circ$  yw ongl A ar y diagram.

Beth yw maint ongl **B**?

- a  $25^\circ$
- b  $50^\circ$
- c  $65^\circ$
- d  $70^\circ$

8 This is a diagram of a step ladder.

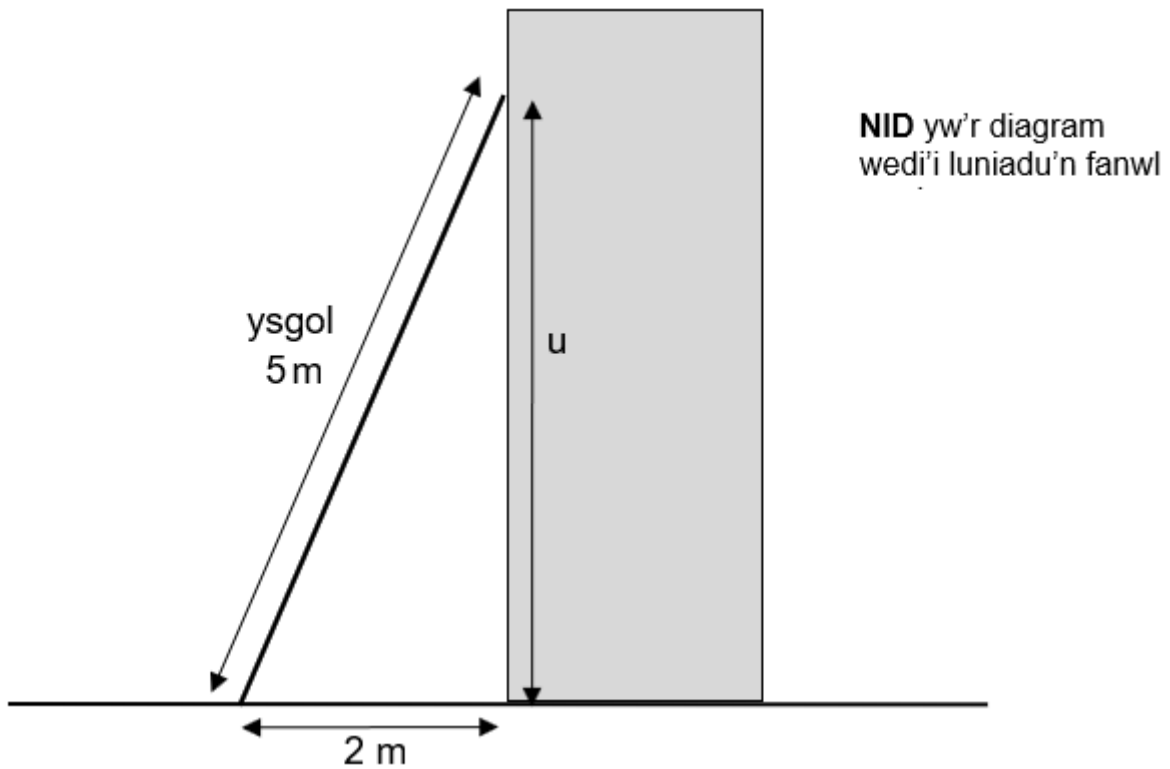


Angle A on the diagram is  $40^\circ$

What is the size of angle B?

- a  $25^\circ$
- b  $50^\circ$
- c  $65^\circ$
- d  $70^\circ$

9 Mae'r ysgol yn cael ei gosod yn erbyn wal wahanol.



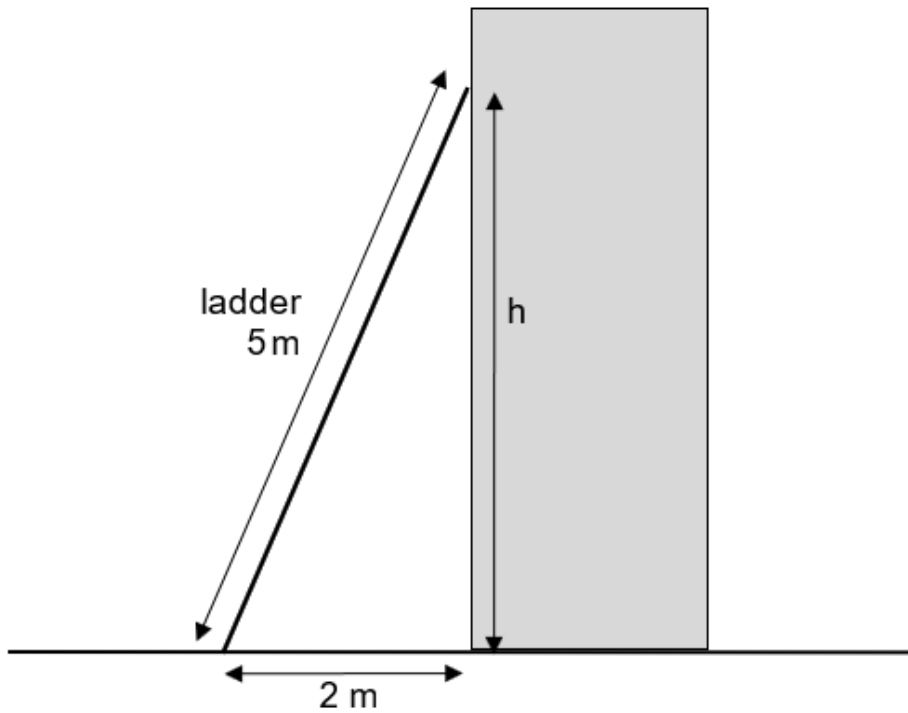
Mae'r ysgol wedi cael ei haddasu fel ei bod nawr yn 5 metr o hyd.

Beth yw uchder u ar y diagram?

- a  $\sqrt{20}$  m
- b  $\sqrt{21}$  m
- c  $\sqrt{23}$  m
- d  $\sqrt{25}$  m

9 The ladder is put against a different wall.

Diagram **NOT** accurately drawn



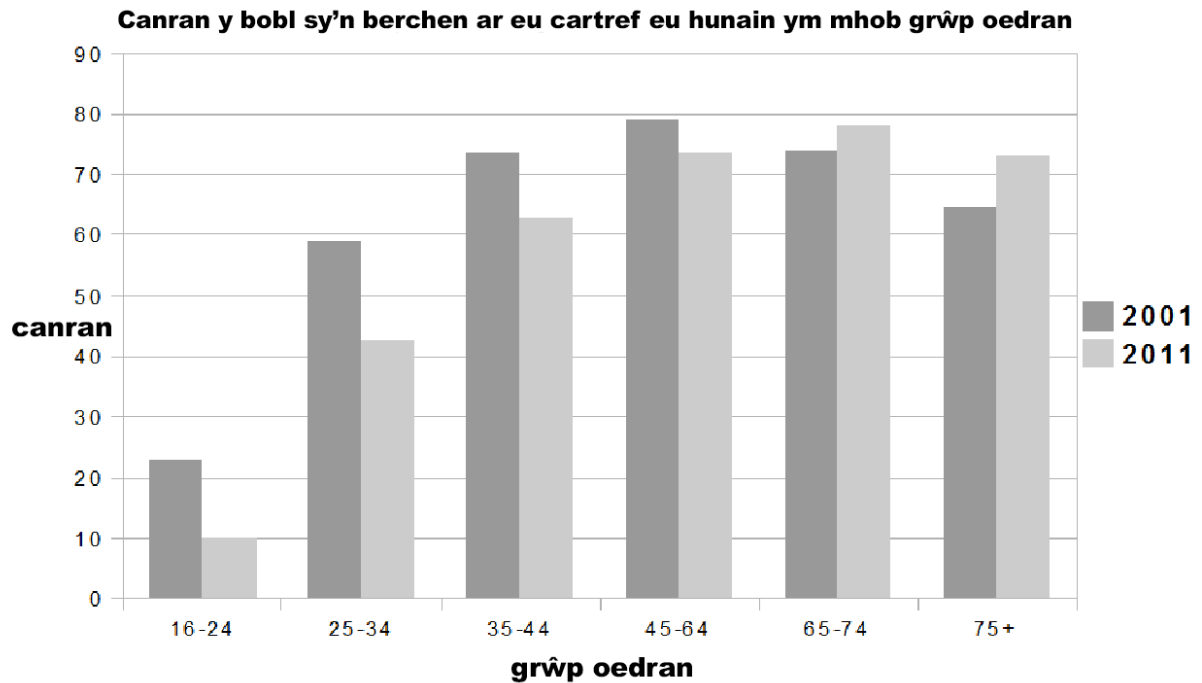
The ladder is adjusted so it is now 5 metres long.

What is the height **h** on the diagram?

- a  $\sqrt{20}$  m
- b  $\sqrt{21}$  m
- c  $\sqrt{23}$  m
- d  $\sqrt{25}$  m

## Mae cwestiynau 10 i 12 yn sôn am oedran perchnogion tai.

10 Mae'r siart hwn yn dangos gwybodaeth am oedran perchnogion tai yn y Deyrnas Unedig.

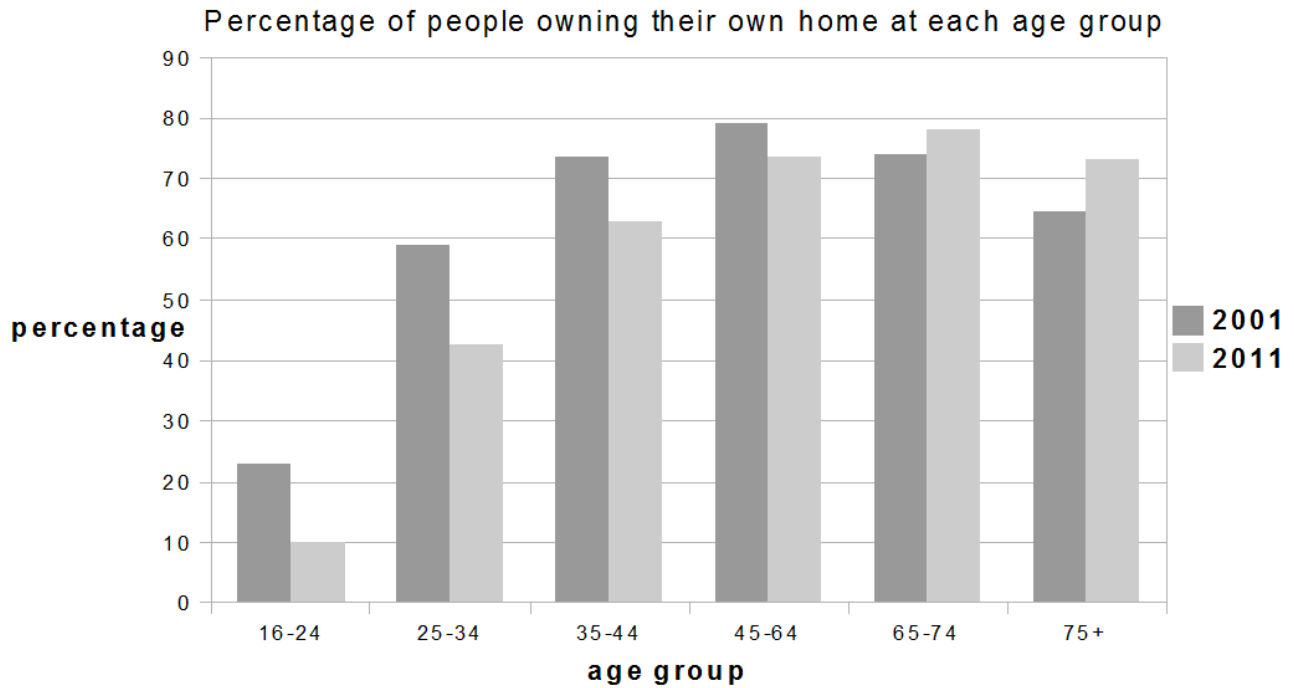


Pa un o'r datganiadau hyn sy'n wir?

- a Yn 2011, roedd canran y bobl 16 i 24 oed a oedd yn berchnogion tai yn fwy na hanner y ganran yn 2001
- b Yn 2001, roedd canran uwch o bobl 65 i 74 oed yn berchnogion tai o'i gymharu â'r grŵp oedran 45 i 64
- c Rhwng 2001 a 2011, cynyddodd canran y bobl dros 74 a oedd yn berchnogion tai
- d Roedd canran y bobl rhwng 45 a 64 oed a oedd yn berchnogion tai yn fwy na'r holl grwpiau oedran eraill yn 2001 a 2011

**Questions 10 to 12 are about the age of homeowners.**

10 This chart shows information about the age of homeowners in the United Kingdom.



Which of these statements is true?

- a In 2011, the percentage of people aged 16 to 24 who were homeowners was more than half of that in 2001
- b In 2001, there was a higher percentage of people aged 65 to 74 who were homeowners compared to the 45 to 64 age group
- c The percentage of people over 74 who were homeowners increased between 2001 and 2011
- d The percentage of people aged 45 to 64 who were homeowners was greater than all the other age groups in both 2001 and 2011

11 Yn 2011, poblogaeth y DU oedd  $6.326 \times 10^7$ .

Yn 2015, poblogaeth y DU oedd  $6.511 \times 10^7$ .

Beth oedd y cynnydd ym mhoblogaeth y DU rhwng 2011 a 2015?

- a 18 500
  - b 185 000
  - c 1 850 000
  - d 18 500 000
- 

11 In 2011, the UK population was  $6.326 \times 10^7$

In 2015, the UK population was  $6.511 \times 10^7$

What was the increase in the UK population between 2011 and 2015?

- a 18 500
- b 185 000
- c 1 850 000
- d 18 500 000

12 Yn 2011, roedd 75% o bobl dros 64 oed yn berchnogion tai.

Yn 2011, roedd yna tua 10 378 000 o bobl dros 64 oed.

Beth yw'r brasamcan agosaf at nifer y perchnogion tai dros 64 oed yn 2011?

- a  $1.38 \times 10^7$
  - b  $7.78 \times 10^6$
  - c  $1.38 \times 10^6$
  - d  $7.78 \times 10^5$
- 

12 In 2011, 75% of people over 64 were homeowners.

In 2011 there were about 10 378 000 people aged over 64

Which is the closest estimate of the number of homeowners aged over 64 in 2011?

- a  $1.38 \times 10^7$
- b  $7.78 \times 10^6$
- c  $1.38 \times 10^6$
- d  $7.78 \times 10^5$



**Mae cwestiynau 13 i 15 yn sôn am briodweddau defnyddiau.**

13 Mae'r tabl hwn yn dangos priodweddau defnyddiau.

<b>Defnydd</b>	<b>Dwysedd (g/cm<sup>3</sup>)</b>	<b>Cryfder tynol (MPa)</b>
Dur Carbon Isel	7.85	257
Aloi alwminiwm	4.73	241
Pres	8.55	155
Haearn bwrw	7.21	130
Copr	8.96	70

$$\text{Màs (g)} = \text{Dwysedd (g/cm}^3\text{)} \times \text{Cyfaint (cm}^3\text{)}$$

Mae angen bar toriad petryal solet.

Mae angen i'r bar fod yn 20 cm o hyd, 1 cm o uchder a 5 cm o led.

Rhaid i gryfder tynol y bar fod yn fwy na 150 MPa (Megapascal).

Rhaid i'r màs fod yn llai na 750 gram.

Pa un o'r defnyddiau hyn a ddylai gael ei ddefnyddio i wneud y bar?

- a Dur carbon isel
- b Haearn bwrw
- c Pres
- d Aloi alwminiwm

Questions 13 to 15 are about the properties of materials.

13 This table shows the properties of materials.

Material	Density (g/cm <sup>3</sup> )	Tensile strength (MPa)
Low Carbon Steel	7.85	257
Aluminium alloy	4.73	241
Brass	8.55	155
Cast iron	7.21	130
Copper	8.96	70

$$\text{Mass} = \text{Density} \times \text{Volume}$$

**g                  g/cm<sup>3</sup>                  cm<sup>3</sup>**

A solid rectangular section bar is needed.

The bar needs to be 20 cm long, 1 cm high and 5 cm wide.

The bar must have a tensile strength of more than 150 MPa (Megapascals).

Its mass must be less than 750 grams.

Which of these materials should be used to make the bar?

- a Low carbon steel
- b Cast iron
- c Brass
- d Aluminium alloy

14 Mae'r tabl hwn yn dangos priodweddau defnyddiau.

Defnydd	Dwysedd (g/cm <sup>3</sup> )	Cryfder tynnol (MPa)
Dur Carbon Isel	7.85	257
Aloi alwminiwm	4.73	241
Pres	8.55	155
Haearn bwrw	7.21	130
Copr	8.96	70

$$\text{Màs (g)} = \text{Dwysedd (g/cm}^3\text{)} \times \text{Cyfaint (cm}^3\text{)}$$

Trawstoriad bar pres solet yw sgwâr gydag ochrau sy'n 2 cm o hyd.  
Mae ganddo fàs o 1 cilogram.

Beth yw hyd y bar pres?

- a 2.92 cm
- b 29.24 cm
- c 58.48 cm
- d 116.96 cm

14 This table shows the properties of materials.

Material	Density (g/cm <sup>3</sup> )	Tensile strength (MPa)
Low Carbon Steel	7.85	257
Aluminium alloy	4.73	241
Brass	8.55	155
Cast iron	7.21	130
Copper	8.96	70

$$\text{Mass} = \text{Density} \times \text{Volume}$$

**g                      g/cm<sup>3</sup>                      cm<sup>3</sup>**

A solid brass bar has a cross section that is a square with sides of 2 cm. It has a mass of 1 kilogram.

What is the length of the brass bar?

- a 2.92 cm
- b 29.24 cm
- c 58.48 cm
- d 116.96 cm

15 Mae'r tabl hwn yn dangos priodweddau defnyddiau.

Defnydd	Dwysedd (g/cm <sup>3</sup> )	Cryfder tynnol (MPa)
Dur Carbon Isel	7.85	257
Aloi alwminiwm	4.73	241
Pres	8.55	155
Haearn bwrw	7.21	130
Copr	8.96	70

$$\text{Màs (g)} = \text{Dwysedd (g/cm}^3\text{)} \times \text{Cyfaint (cm}^3\text{)}$$

Mae 1000 cilogram mewn 1 tonn.

Beth yw màs 1 m<sup>3</sup> o aloi alwminiwm?

- a 47.3 tonn
- b 4.73 tonn
- c 0.473 tonn
- d 0.0473 tonn

15 This table shows the properties of materials.

Material	Density (g/cm <sup>3</sup> )	Tensile strength (MPa)
Low Carbon Steel	7.85	257
Aluminium alloy	4.73	241
Brass	8.55	155
Cast iron	7.21	130
Copper	8.96	70

$$\text{Mass} = \text{Density} \times \text{Volume}$$

**g                      g/cm<sup>3</sup>                      cm<sup>3</sup>**

There are 1000 kilograms in 1 tonne.

What is the mass of 1 m<sup>3</sup> of aluminium alloy?

- a 47.3 tonnes
- b 4.73 tonnes
- c 0.473 tonnes
- d 0.0473 tonnes

**Mae cwestiynau 16 i 18 yn sôn am fenthyciad banc.**

16 Mae dyn eisiau benthyc £2000 gan fanc.

Mae'r fformiwla hon yn rhoi y swm i'w ad-dalu.

$$P = L \times 1.1^n$$

P = Swm i'w ad-dalu  
L = Swm i'w fenthyc  
n = Nifer y blynyddoedd

Faint sydd i'w ad-dalu ar ôl 3 blynedd?

- a £2662
- b £2600
- c £2420
- d £2200

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**Questions 16 to 18 are about a bank loan.**

16 A man wants to borrow £2 000 from a bank.

This formula gives the amount to be repaid.

$$P = L \times 1.1^n$$

P = Amount to be repaid  
L = Amount to be borrowed  
n = Number of years

How much is to be repaid after 3 years?

- a £2 662
- b £2 600
- c £2 420
- d £2 200

17 Ad-delir benthyciad o £2000 dros 5 mlynedd.  
Cyfradd yr adlog ar gyfer y benthyciad hwn yw 20% bob blwyddyn.

Pa un yw'r cyfrifiad cywir i ganfod y swm sydd i'w ad-dalu?

- a  $2000 \times 0.2^5$
  - b  $2000 \times 1.2^3$
  - c  $2000 \times 1.5^2$
  - d  $2000 \times 1.2^5$
- 

17 A loan of £2000 is repaid over 5 years.  
The rate of compound interest for this loan is 20% per year.

Which is the correct calculation to find the amount repaid?

- a  $2000 \times 0.2^5$
- b  $2000 \times 1.2^3$
- c  $2000 \times 1.5^2$
- d  $2000 \times 1.2^5$

18 Mae benthyciad o £2000 yn cael ei gymryd allan. Mae'r llog yn 20% bob blwyddyn.

Mae cyfanswm y benthyciad a'r llog yn cael ei ad-dalu mewn 12 rhandaliad cyfartal dros flwyddyn.

Faint yw pob rhandaliad?

- a £175.00
  - b £183.33
  - c £200.00
  - d £240.00
- 

18 A loan of £2000 is taken out. The interest is 20% per annum.

The total of the loan and the interest is paid back in 12 equal instalments over one year.

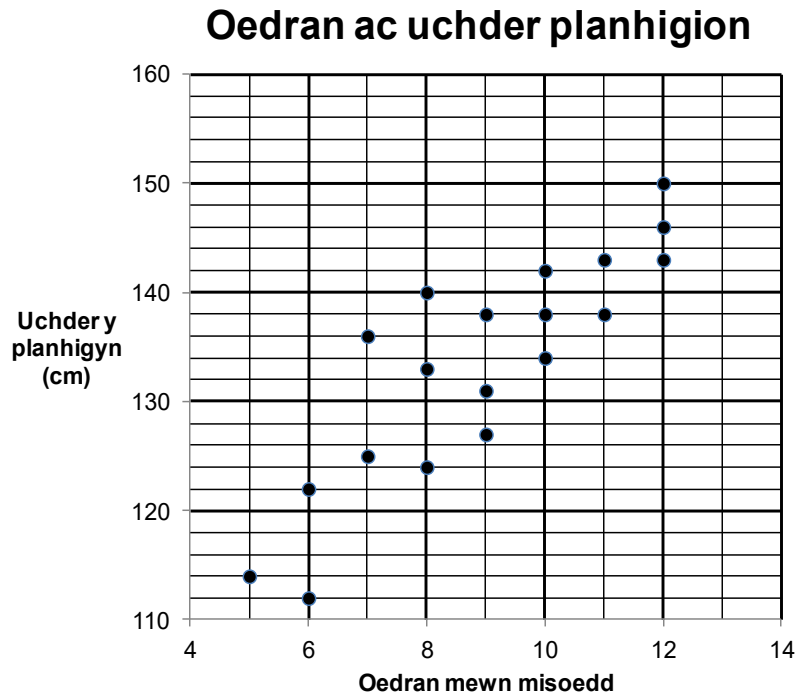
How much is each instalment?

- a £175.00
- b £183.33
- c £200.00
- d £240.00



Mae cwestiynau 19 i 21 yn sôn am oedran ac uchder planhigion.

19 Mae'r graff hwn yn dangos oedran ac uchder rhai planhigion.

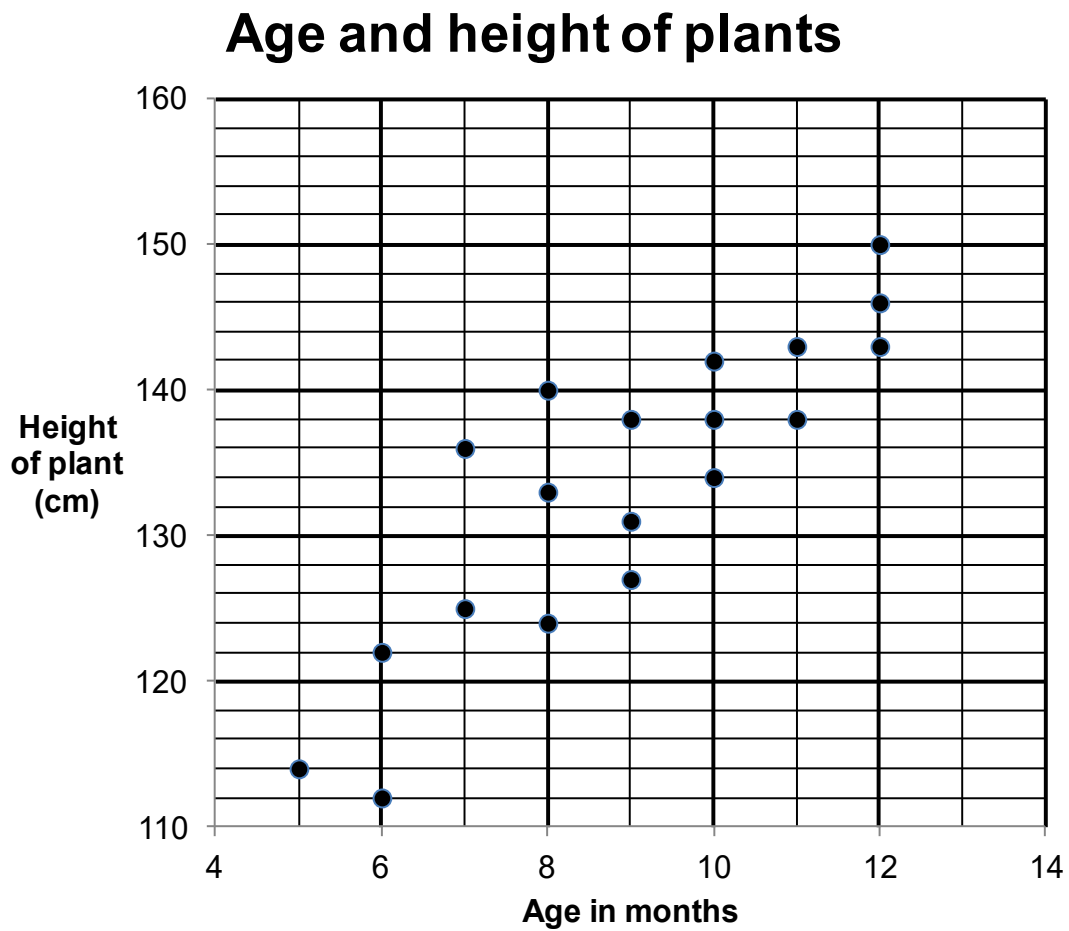


Pa oedran sy'n dangos yr amrediad mwyaf o ran uchder?

- a 5 mis
- b 7 mis
- c 8 mis
- d 12 mis

Questions 19 to 21 are about plants.

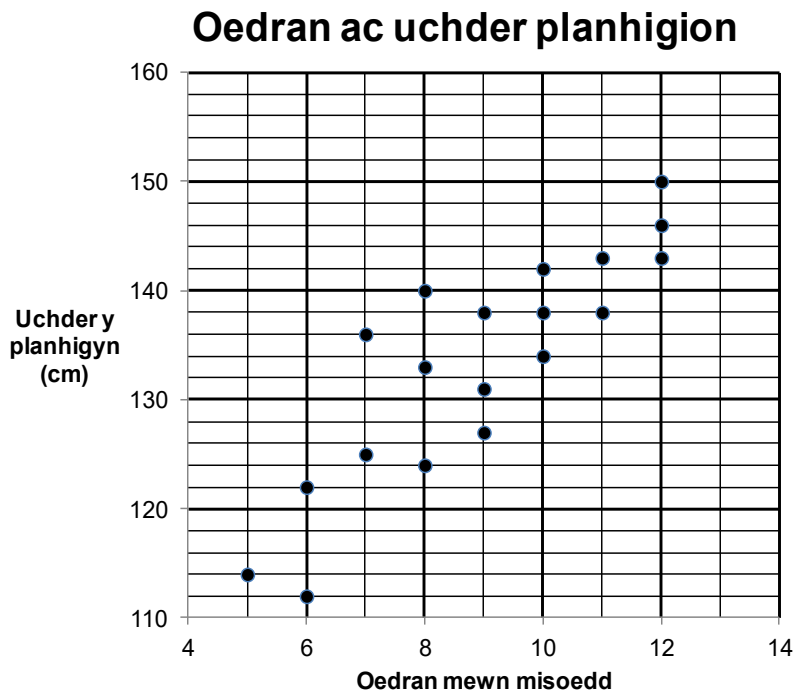
19 This graph shows the ages and heights of some plants.



At which age is there the greatest range of heights?

- a 5 months
- b 7 months
- c 8 months
- d 12 months

20 Mae'r graff hwn yn dangos oedran ac uchder rhai planhigion.

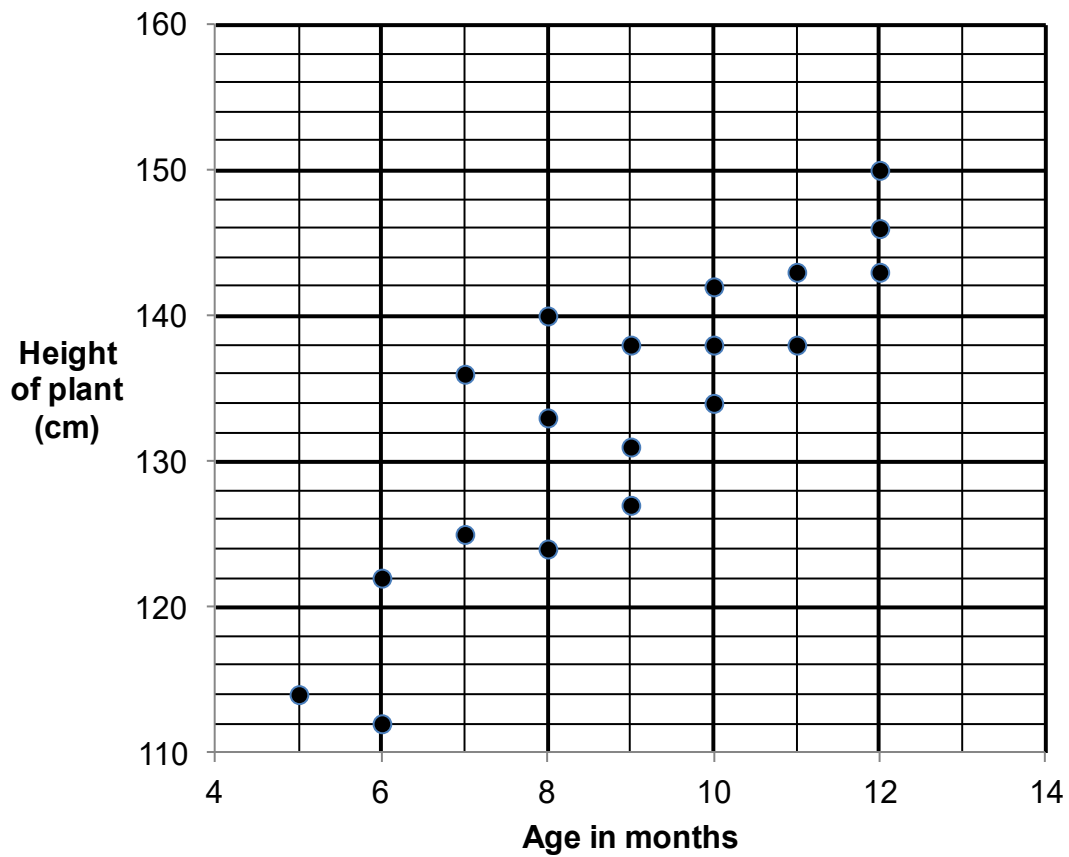


Faint o'r planhigion 10 mis oed neu lai sydd ag uchder mwy na 122cm?

- a 12
- b 11
- c 9
- d 8

20 This graph shows the ages and heights of some plants.

### Age and height of plants



How many of the plants aged 10 months or less have a height greater than 122 cm?

- a 12
- b 11
- c 9
- d 8

21 Mae planhigion yn cael eu tyfu i dreialu bwyd planhigion newydd.

Mae'r tabl amlder grŵp yn dangos uchder y planhigion.

Uchder planhigion (cm)	Amllder	Amllder cronuss
$\leq 20$	12	12
21 - 30	26	38
31 - 40	34	72
41 - 50	44	116
51 - 60	16	132
61 - 70	5	137
$\geq 71$	2	139

Ym mha grŵp mae uchder canolrif y planhigion?

- a 31 – 40 cm
- b 41 – 50 cm
- c 51 – 60 cm
- d 61 – 70 cm

21 Some plants are grown to trial a new plant food.

The grouped frequency table shows the height of the plants.

Height of plants (cm)	Frequency	Cumulative frequency
$\leq 20$	12	12
21 - 30	26	38
31 - 40	34	72
41 - 50	44	116
51 - 60	16	132
61 - 70	5	137
$\geq 71$	2	139

In which group is the median height of the plants?

- a 31 – 40 cm
- b 41 – 50 cm
- c 51 – 60 cm
- d 61 – 70 cm

**Mae cwestiynau 22 i 24 yn sôn am wneud clustogau.**

22 Mae gweithiwr yn torri'r defnydd ar gyfer nifer o glustogau.

Yna mae'n pwytho ymylon y clustogau hyn.

<b>Prosesau gwneud clustogau</b>	
<b>Proses</b>	<b>Amser mae'n ei gymryd fesul clustog (munudau)</b>
Torri'r defnydd	5
Pwytho'r ymylon	15
Ychwanegu addurniadau	20

Mae torri a phwytho'r clustogau hyn yn cymryd cyfanswm o 4 awr.

Beth oedd cyfanswm yr amser wnaeth ef ei dreulio'n torri'r defnydd?

- a 48 munud
- b 60 munud
- c 80 munud
- d 90 munud

**Questions 22 to 24 are about making cushions.**

22 A worker cuts the material for a number of cushions.

He then stitches the edges of these cushions.

<b>Cushion making processes</b>	
<b>Process</b>	<b>Time Taken Per Cushion (minutes)</b>
Cut material	5
Stitch edges	15
Add decoration	20

Cutting and stitching for these cushions takes a total of 4 hours.

How much time in total did he spend cutting the material?

- a 48 minutes
- b 60 minutes
- c 80 minutes
- d 90 minutes

23 Mae gweithiwr arall yn torri defnydd, yn pwytho ymylon ac yn ychwanegu addurniadau i wneud clustogau.

<b>Prosesau gwneud clustogau</b>	
<b>Proses</b>	<b>Amser mae'n ei gymryd fesul clustog (munudau)</b>
Torri'r defnydd	5
Pwytho'r ymylon	15
Ychwanegu addurniadau	20

Cost cyflog y gweithiwr yw £9 yr awr.

Cost y defnyddiau ar gyfer pob clustog yw £4.50.

Mae clustogau yn gwerthu am £25 yr un.

Beth yw'r elw fesul clustog fel canran o'r pris gwerthu?

- a 42%
- b 46%
- c 58%
- d 64%



23 Another worker cuts material, stitches edges and adds decoration to make cushions.

<b>Cushion making processes</b>	
<b>Process</b>	<b>Time Taken Per Cushion (minutes)</b>
Cut material	5
Stitch edges	15
Add decoration	20

The cost of wages for the worker is £9 per hour.

The cost of materials is £4.50 per cushion.

Cushions sell for £25 each.

What is the profit per cushion as a percentage of the selling price?

- a 42%
- b 46%
- c 58%
- d 64%

24 Mae gweithiwr yn defnyddio peiriant i lenwi clustogau.

Mae'n cymryd 40 eiliad i lenwi pob clustog.

Sawl clustog mae'r gweithiwr yn gallu eu llenwi mewn diwrnod 8 awr?

- a 720
  - b 620
  - c 320
  - d 72
- 

24 A worker uses a machine to fill cushions.

It takes 40 seconds to fill each cushion.

How many cushions can the worker fill in an 8 hour day?

- a 720
- b 620
- c 320
- d 72

**Mae cwestiynau 25 i 27 yn sôn am gerdded yn y wlad.**

25 Mae map yn dangos llwybr taith gerdded.

Graddfa'r map yw 1 : 20 000

Ar y map, hyd un rhan o'r llwybr yw 4 cm.

Beth yw gwir bellter y rhan hon o'r llwybr?

- a 8 cilometr
- b 2 gilometr
- c 0.8 cilometr
- d 0.2 cilometr

---

**Questions 25 to 27 are about walking in the country.**

25 A map shows the route of a walk.

The scale of the map is 1 : 20 000

On the map, the length of one part of the route is 4 cm.

What is the actual distance of this part of the route?

- a 8 kilometres
- b 2 kilometres
- c 0.8 kilometres
- d 0.2 kilometres

26 Cyfanswm pellter y llwybr yw 18.75 centimetr ar y map.

Graddfa'r map yw 1 : 20 000

Fel arfer, mae'n cymryd 45 munud i gwblhau'r llwybr hwn.

$$\text{Cyflymder (km/h)} = \frac{\text{pellter (km)}}{\text{amser (h)}}$$

Beth yw'r cyflymder cerdded cyfartalog ar y llwybr hwn?

- a 2.5 km/h
  - b 3 km/h
  - c 4 km/h
  - d 5 km/h
- 

26 The total distance of the route is 18.75 centimetres on the map.

The scale of the map is 1 : 20 000

It normally takes 45 minutes to complete this route.

$$\text{Speed (km/h)} = \frac{\text{distance (km)}}{\text{time (h)}}$$

What is the average walking speed on this route?

- a 2.5 km/h
- b 3 km/h
- c 4 km/h
- d 5 km/h

27 Mae dau grŵp o bobl yn cerdded ar hyd llwybr sy'n 10 cilometr o hyd.

$$\text{Cyflymder (km/h)} = \frac{\text{pellter (km)}}{\text{amser (h)}}$$

Mae Grŵp A yn cerdded ar gyflymder cyfartalog o 3 km/h.

Mae Grŵp B yn cerdded ar gyflymder cyfartalog o 5 km/h.

Faint yn hirach bydd Grŵp A yn ei gymryd i gwblhau'r llwybr na Grŵp B?

- a 12 munud
- b 20 munud
- c 80 munud
- d 133 munud

---

27 Two groups of people walk along a 10 kilometre route.

$$\text{Speed (km/h)} = \frac{\text{distance (km)}}{\text{time (h)}}$$

Group A walks at an average speed of 3 km/h.

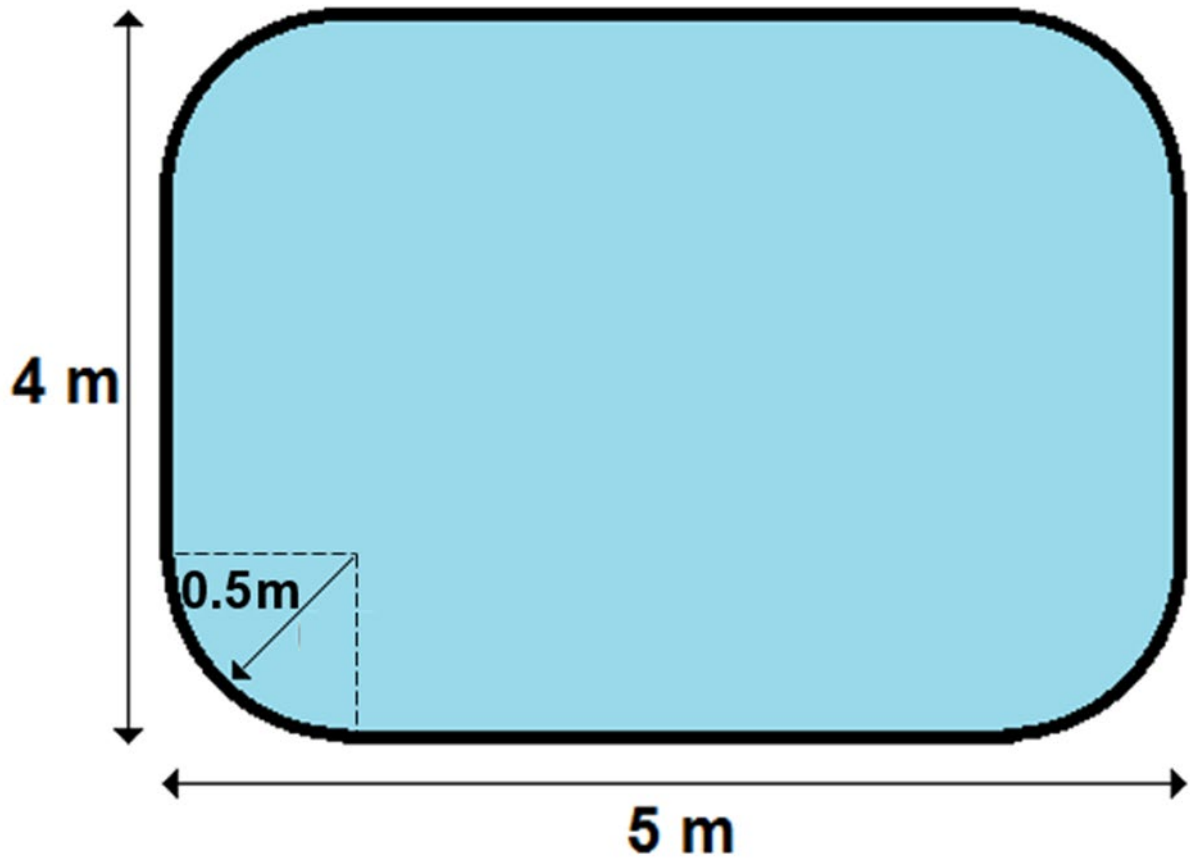
Group B walks at an average speed of 5 km/h.

How much longer does Group A take to complete the route than Group B?

- a 12 minutes
- b 20 minutes
- c 80 minutes
- d 133 minutes

Mae cwestiynau 28 i 30 yn sôn am bwll nofio.

28 Dyma gynllun o bwll nofio.



Mae arwynebedd y pwll yn cael ei gyfrifo drwy ddefnyddio'r fformiwla hon

$$A = LW - r^2(4 - \pi)$$

Ile mae:

- A yn cynrychioli'r arwynebedd mewn metrau sgwâr
- L yw'r hyd mewn metrau
- W yw'r lled mewn metrau
- r yw radiws y gromlin mewn metrau

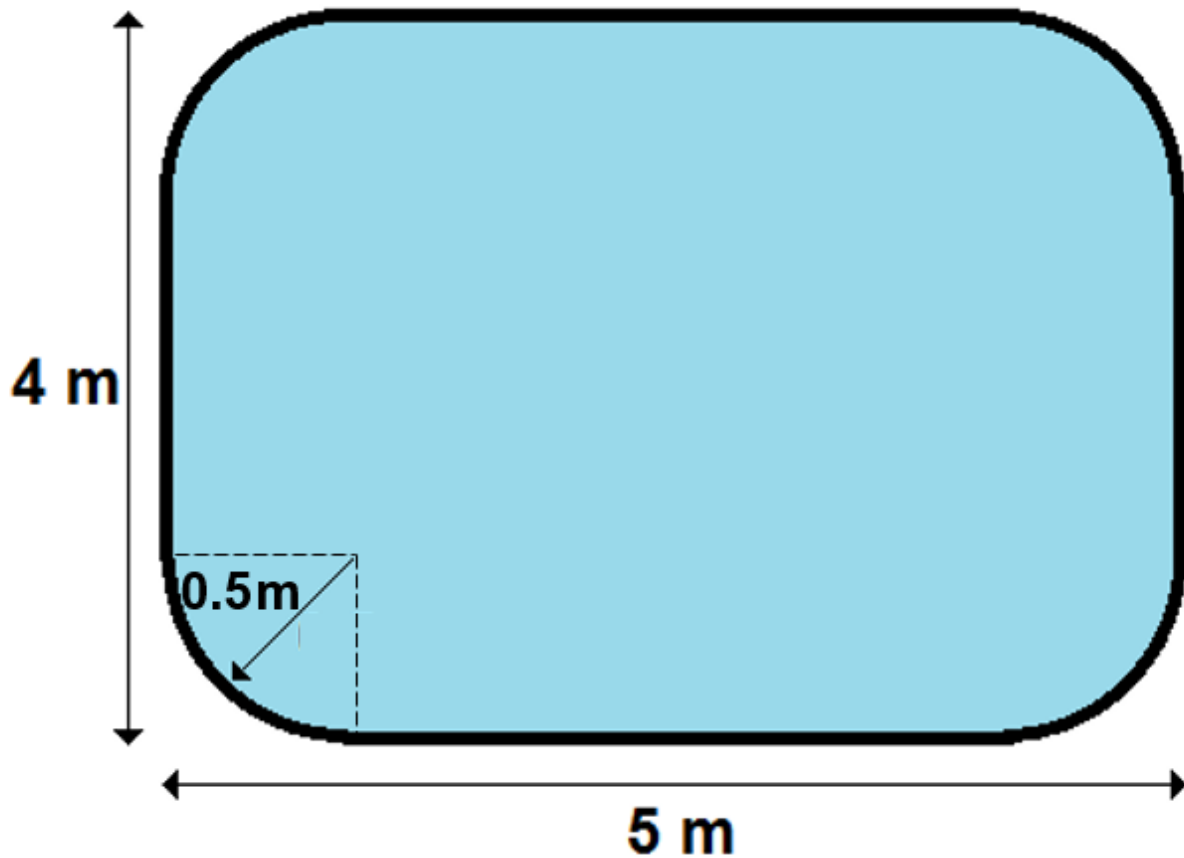
Defnyddiwch  $\pi=3$

Beth yw arwynebedd y pwll?

- a 17.5 m<sup>2</sup>
- b 19.5 m<sup>2</sup>
- c 19.75 m<sup>2</sup>
- d 19.975 m<sup>2</sup>

Questions 28 to 30 are about a swimming pool.

28 This is a plan of a swimming pool.



The area of the pool is calculated using this formula

$$A = LW - r^2(4 - \pi)$$

where: A is the area in square metres  
L is the length in metres  
W is the width in metres  
r is the radius of the curve in metres  
Use  $\pi = 3$

What is the area of the pool?

- a 17.5 m<sup>2</sup>
- b 19.5 m<sup>2</sup>
- c 19.75 m<sup>2</sup>
- d 19.975 m<sup>2</sup>

29 Mae arwynebedd y pwll yn cael ei gyfrifo drwy ddefnyddio'r fformiwla hon

$$A = LW - r^2(4 - \pi)$$

Ile mae  $r$  yn cynrychioli'r radiws.

Ad-drefnwch y fformiwla er mwyn i'r radiws fod yn destun.

a

$$r = \sqrt{\frac{A - LW}{4 - \pi}}$$

b

$$r = \sqrt{\frac{LW - A}{4 - \pi}}$$

c

$$r = \sqrt{\frac{4 - \pi}{A - LW}}$$

d

$$r = \sqrt{\frac{4 - \pi}{LW - A}}$$



29 The area of the pool is calculated using this formula

$$A = LW - r^2(4 - \pi)$$

where  $r$  is the radius

Rearrange the formula so that the radius is the subject.

a

$$r = \sqrt{\frac{A - LW}{4 - \pi}}$$

b

$$r = \sqrt{\frac{LW - A}{4 - \pi}}$$

c

$$r = \sqrt{\frac{4 - \pi}{A - LW}}$$

d

$$r = \sqrt{\frac{4 - \pi}{LW - A}}$$

30 Cynhwysedd y pwll yw  $20 \text{ m}^3$ .

Mae'r pwll yn cael ei lenwi ar gyfradd o 8 litr o ddŵr bob munud.

$$\mathbf{1 \text{ litr o ddŵr} = 0.001 \text{ m}^3}$$

Faint o amser mae'n ei gymryd i lenwi'r pwll â dŵr?

- a 4 awr 10 munud
- b 16 awr
- c 41 awr 40 munud
- d 41 awr 45 munud

---

30 The pool has a capacity of  $20 \text{ m}^3$ .

The pool is filled at a rate of 8 litres of water per minute.

$$\mathbf{1 \text{ litre of water} = 0.001 \text{ m}^3}$$

How long does it take to fill the pool with water?

- a 4 hours 10 minutes
- b 16 hours
- c 41 hours 40 minutes
- d 41 hours 45 minutes