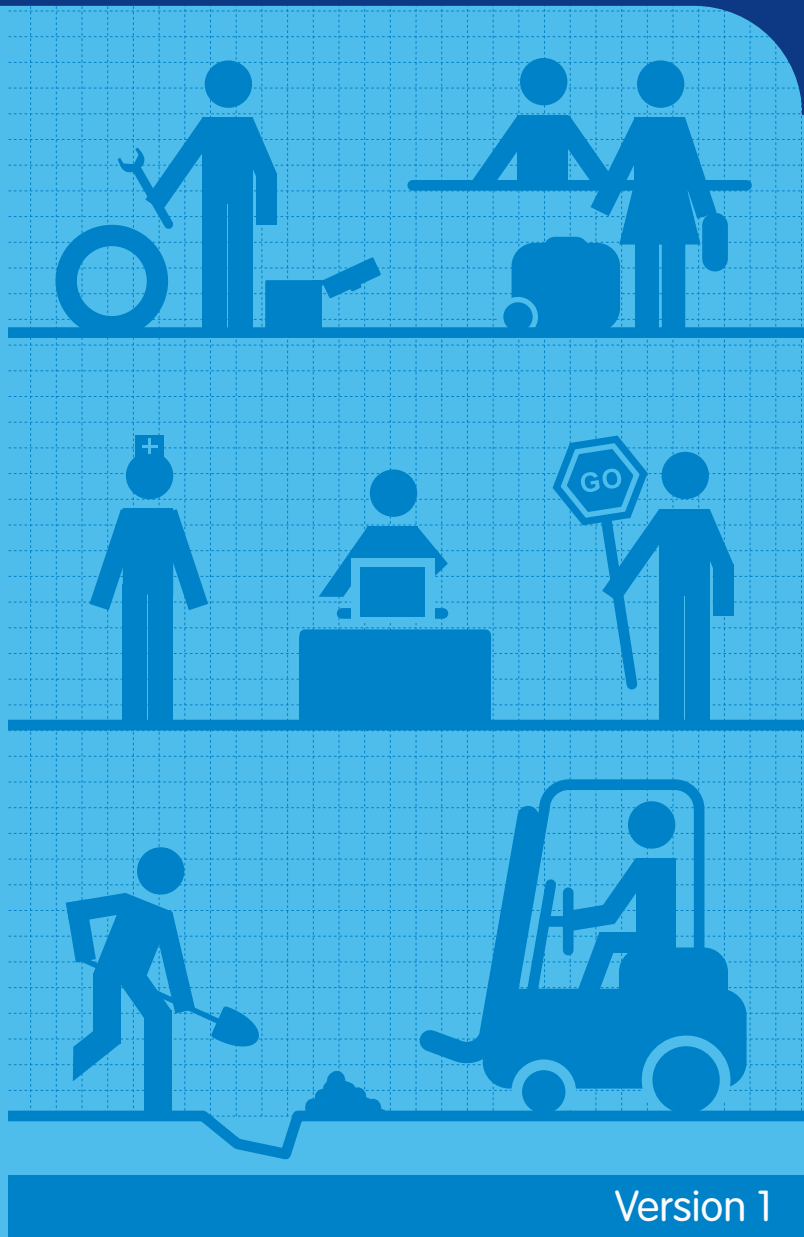


Skills for Life:

The national strategy for improving adult literacy and numeracy skills



Version 1

Numeracy

Initial Assessment for use in the workplace
Assessor Guide and Learner Answer Booklet

Skills for Life: the national strategy for improving adult literacy and numeracy skills

Millions of adults in England need help to improve their literacy, language and numeracy skills. *Skills for Life*, launched by the Prime Minister in 2001, sets out the Government's strategy, which aims to help 2.25 million learners gain a national qualification by 2010.

Since 2001 a massive 3.7 million adults across England have taken up 7.8 million courses in literacy, language and numeracy skills. 1,130,000 of these learners have gone on to achieve at least one first qualification.

Since the launch of *Skills for Life*, we have gained an even greater insight into the effect low levels of literacy and numeracy skills have on individuals, their families, on the economy and on society. For example, adults with poor literacy and numeracy skills could earn up to £50,000 less over their lifetime and are more likely to have health problems, to live in a disadvantaged area or to be unemployed. They and their children risk being cut off from the benefits of a world increasingly linked through information technology. Additionally, poor literacy, language and numeracy skills have been estimated to cost the country in excess of £10 billion a year.

Skills for Life is an ambitious strategy that is designed to address literacy, language and numeracy needs of all adults and young people. It covers all post-16 learners on learning programmes at levels from pre-Entry up to and including Level 2. These programmes range from discrete to embedded courses, and from classroom and community provision to voluntary and work-based learning. Achievement and progress in *Skills for Life* are recognised through certification of Key Skills, GCSE Maths and English, and adult literacy and numeracy. It is therefore crucial that the strategy supports and reflects the successful implementation of all other post-16 strategies. These strategies include *Success for All*, the strategy for reforming post-16 further education, and the *Skills Strategy*, which aims to ensure that the skills we develop are valuable to young people and valued by employers. Our goal to improve the skills of young people is also central to the *Opportunity and Excellence 14–19* strategy, the *14–19 Education and Skills White Paper* (published 2005) and the *Schools White Paper: Higher Standards, Better Schools for All* (published 2005).

Each organisation and individual has a contribution to make. We believe that the most important element for successful delivery of *Skills for Life* is partnership, together with the ownership of the strategy by all our key supporting and development partners.

Government departments, the Learning and Skills Council (LSC), Jobcentre Plus, the Prison and Probation Services, development and learning providers in the post-16 learning sector, businesses, the CBI, the TUC, Sector Skills Councils and many other organisations are working together to improve the literacy, language and numeracy skills of adults through:

- **Learner and employer engagement**

To engage and increase participation of young people and adults from priority groups in *Skills for Life* learning, through targeted activities within and across Government and its agencies, the workplace and the community.

- **Ensuring capacity**

To improve the planning and funding of *Skills for Life* provision so that literacy, language and numeracy provision is effective and well co-ordinated.

- **Improving quality**

To improve standards and quality in teaching and learning in literacy, language and numeracy, to remodel and professionalise the *Skills for Life* workforce.

- **Improving achievement and progression**

To improve outcomes in literacy, language and numeracy provision and progression onto further learning and assess impact on social inclusion and economic outcomes.

Skills for Life Strategy Unit

This item was produced as part of a suite of tools to assess learners for *Skills for Life* programmes. The tools were developed as part of a project from 2003-2006. The project was jointly led by AlphaPlus Consultancy Ltd and BTL Group Ltd on behalf of the *Skills for Life* Strategy Unit (DfES).

AlphaPlus Consultancy Ltd and BTL Group Ltd would like to thank all those who took part in the trials and contributed to the tools.

Numeracy

Initial assessment

For use in the workplace

Assessor guide and learner answer booklet

What is an initial assessment?

The numeracy initial assessment tool is designed to indicate the approximate skills level of a learner up to, and including, Level 2. It forms part of the *Skills for Life* Learning Journey, following on from the skills check (previously referred to as the screening process) and leading on to diagnostic assessments.

What skills does the tool assess?

The tool is designed to assess a learner's skills in:

- number
- measures, shape and space
- handling data.

All questions address criteria in the Adult Numeracy Core Curriculum and national standards. Questions begin at Entry 1 and increase in difficulty to Level 2. Questions relate broadly to the world of work but not to specific occupations, nor to specific sectors.

There are 25 questions altogether.

Calculators are **not** allowed.

How much time will be needed?

Initial assessments are not tests and are not timed. Learners should be encouraged to finish in their own time and not to rush.

However, 50–60 minutes should prove adequate in most cases. Many learners will require far less time than this; a few may need a little more time. Assessors should look out for learners who appear to be having problems and invite them to stop.

Who should supervise the initial assessment?

The assessments should be conducted by fully trained individuals. The interpretation of the assessment results and feedback should be overseen by an experienced *Skills for Life* practitioner.

Under what conditions should the assessment take place?

A room (or reasonably private space) is needed in which learners can complete the assessment undisturbed. Learners will require:

- tables and chairs
- copies of the learner answer booklet
- blue/black pens
- spare paper.

How should the tools be introduced to learners?

Explain:

- the purpose of the initial assessment and why the information it will provide will help the learner(s)
- that this is **not** a test and that all results are confidential
- that the learner(s) should try to answer as many questions as they can
- that they can take as much time as they need but that 50–60 minutes should be enough
- that they should stop if they get tired or are finding the questions too hard
- that calculators are not allowed
- that notes and workings on the spare paper provided are allowed but will not be collected in.

When ready, read out the brief instructions on the first page of the learner answer booklet.

What needs to be done during the assessment?

- Ensure that everyone has started properly and is coping with the questions.
- Keep an eye on proceedings to ensure that the assessment is going smoothly and look out for learners who appear to be struggling.
- Invite learners who are experiencing difficulties to stop.
- Provide assistance for anyone with a known disability.

What needs to be done at the end of the assessment?

- Collect in the learner answer booklets.
- Thank learners for taking part and explain what will happen next, namely that you will mark the answers and give feedback on the results as soon as you can.
- Mark the answers using this booklet and enter a score on each page of the answer booklet.
- Add up the learner's total score. Please double check the scores and make sure that you have added them correctly.
- Read off the table below to determine the level attained.

Marks	
ENTRY 1	3 – 8
ENTRY 2	9 – 13
ENTRY 3	14 – 18
LEVEL 1	19 – 22
LEVEL 2	23 – 25

Note: learners with 2 marks or fewer are judged to be working towards Entry level.

What feedback should be given?

- All learners should be given feedback on their performance.
- As a minimum, they should be told the level they have attained.
- The Adult Core Curriculum reference for each question is included in this booklet so that an assessor can provide more detailed feedback, if required.
- It is important that feedback is treated with complete confidentiality and considerable sensitivity, and that learners are clear that the initial assessment is simply a stepping stone to more thorough diagnostic assessment.

Are the tools suitable for all learners?

This tool includes a range of questions designed to assess skills from Entry 1 to Level 2. It is not designed to identify individuals operating at pre-Entry levels or at Level 3 or above. The tool is linear: the questions become progressively harder. As a result, the assessment could prove off-putting for weaker learners if it is not dealt with sensitively. An experienced assessor will soon learn when to halt the assessment, if necessary.

What about English for Speakers of Other Languages (ESOL) learners?

The tools are not designed to cater specifically for ESOL learners. Questions can be read to learners who have significant difficulties reading English. However, you must be careful not to use another language in a way that guides the learner to a particular answer.

Are the tools suitable for people with disabilities and/or learning difficulties?

It is a requirement of all *Skills for Life* teaching that each learner be treated according to their needs. This principle applies to assessment as much as to any other aspect of the Learning Journey, but it may raise particular issues regards learners with disabilities. These tools have been designed to be used with as wide a range of learners as possible.

For learners with physical disabilities, you will need to consider well in advance what adaptation to the tools you may need to make (e.g. enlarging the print). Questions can be read to learners if necessary. However, you must be careful not to read the question in a way that guides the learner to a particular answer.

Assessors may sit alongside learners and enter answers on their behalf, if needed. The important things to remember are that these are not tests and that their purpose is to determine skill levels. As long as assessors are not answering the questions, any reasonable help is permitted.

Learners with learning difficulties may, however, find the tools challenging, especially if they have severe reading difficulties. The experienced assessor will need to judge the suitability of the tools for each learner.

The next step: diagnostic assessment

After this initial assessment, it may be appropriate for learners to undergo a more detailed diagnostic assessment.

Diagnostic assessment is an evaluation of a learner's skills, strengths and weaknesses. This is carried out with the assessor in either an individual or group setting. This assessment gives a thorough indication not only of the individual's level at that precise moment, but also of the specific skill areas that they need to improve.

As part of *Skills for Life*, the DfES funded the production of diagnostic assessment materials and learning materials referenced to the national standards and curriculum documents. These diagnostic assessment packs are available from DfES Publications (as is another publication, *Introducing Access for All*, which has useful guidance).

Each diagnostic assessment pack contains:

- paper-based task books for the relevant subject
- a teacher administration manual for each subject, including pre-Entry materials
- a CD-ROM with the full version of all the paper-based tasks.

The best and most efficient way to carry out the diagnostic assessment is to use the interactive CD-ROM, which automatically prints off the individual learning plans (ILPs) for the learner. This is a fully interactive tool and is highly recommended.

You can order the materials:

- by phone on 0845 602 2260
- by email from: dfes@prolog.uk.com.

You can download *Introducing Access for All* from:

<http://www.dfes.gov.uk/readwriteplus/bank/Introducing%20Access%20for%20All.pdf>

The table below provides the reference codes you will need to order the materials.

DfES reference number	Diagnostic assessment materials
DAM1	Diagnostic Assessment Material Pack for Literacy
DAM2	Diagnostic Assessment Material Pack for Numeracy
DAM3	Diagnostic Assessment Material Pack for ESOL
DAM4	Diagnostic Assessment Material Pack for Dyslexia
DAM6	Diagnostic Assessment Interactive CD-ROM
DAM7	Diagnostic Assessment Acrobat PDFs

01 How many people can you see in this picture?



Answer:

N1/E1.1

9

02 In your office there are 3 typists. One morning they type the following number of letters.

Jo	4 letters
Sam	2 letters
Lee	3 letters

How many letters have been typed altogether?

Answer:



N1/E1.4

9

03

The car park near where you work costs £1 per day.

Which single coin would you use?

A



B



C



D



Answer:

Answers

1 mark available
for each question.

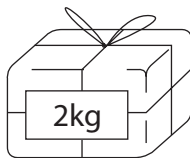
MSS1/E1.1

C

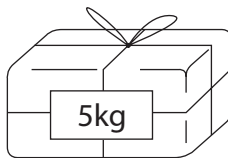
04

In your job you have to carry parcels.

Some parcels are shown below.



X



Y



Z

Which statement is correct?

Write A, B, C or D in the answer box.

- A Z is heavier than Y
- B Y is lighter than X
- C X is heavier than Y
- D X is lighter than Y

Answer:

MSS1/E1.5

D

05

Here is a list of the telephone extension numbers in your office:

Benita White	Office Manager	2540
Jenny Haws	Sales Manager	2554
John Phillips	Site Manager	2539
Mel Hicks	Administrative Assistant	2569

You have to transfer a call to Jenny Haws.

Which number should you use?

Answer:

Answers

1 mark available for each question.

HD1/E1.1

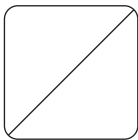
2554

06

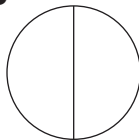
The staff in the canteen have divided a cake into quarters.

Which diagram shows this cake?

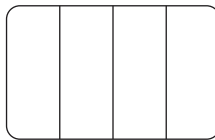
A



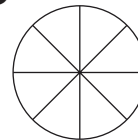
B



C



D



Answer:

N2/E2.2

C

07

If you are paid £5.00 per hour, how much will you earn in 7 hours?

Answer:

Answers

1 mark available for each question.

N1/E2.5

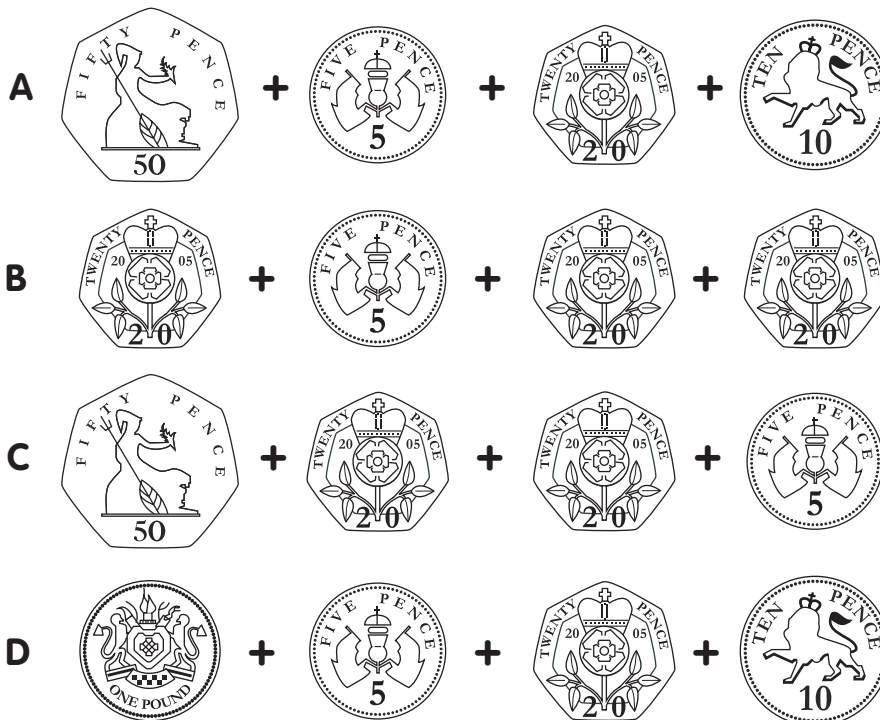
£35.00
or £35

08

In your staff canteen you are charged 85 pence for a salad.

Which of these makes up the correct money?

Write A, B, C or D in the answer box.



Answer:

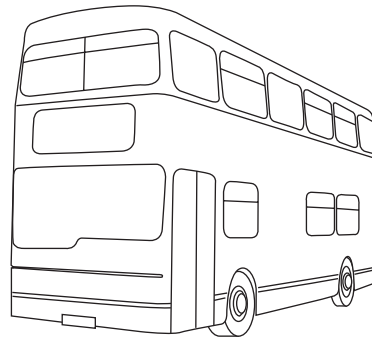
MSS1/E2.1

A

09

If your bus fare to and from work is 45 pence to get there and 45 pence to get back, how much change will you have left from £1.00 each day?

Answer:

**Answers**

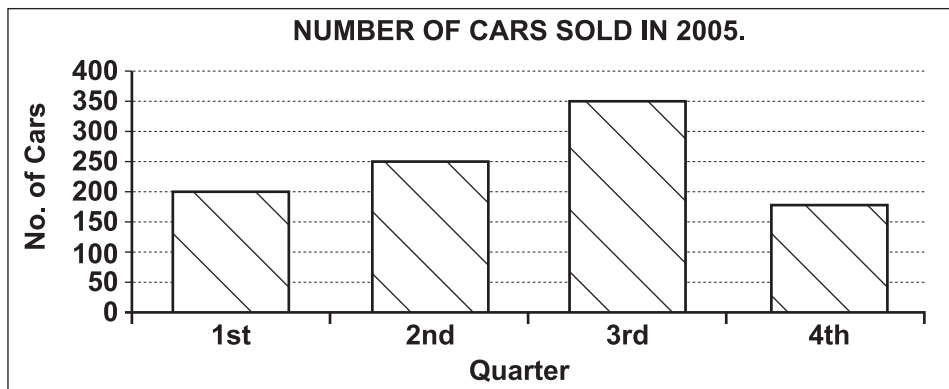
1 mark available
for each question.

MSS1/E2.2

10p

10

The chart shows how many cars a company sold in 2005.



In which quarter did the company sell the fewest cars?

Answer:

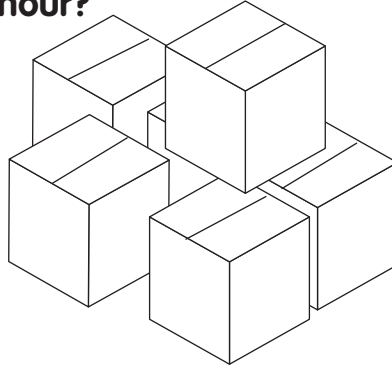
HD1/E2.1

4th

11 You are asked to pack 32 boxes in 4 hours.

How many will you have to pack per hour?

Answer:



Answers

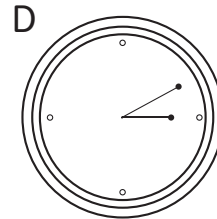
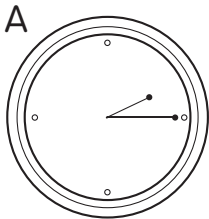
1 mark available
for each question.

N1/E3.6

8

12 Your break is at a quarter past two in the afternoon. Which of these clocks shows that time?

Write A, B, C or D in the answer box.



Answer:

MSS1/E3.3

A

13

Your wages amount to £328.00 but Tax and National Insurance of £59.00 are taken out.

How much will you receive?

Answer:

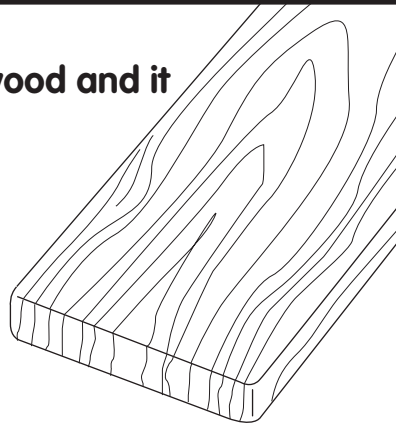
14

You measure the length of a piece of wood and it comes to 50cm.

What fraction of a metre is this?

Write A, B, C or D in the answer box.

- A $\frac{1}{50}$
- B $\frac{1}{2}$
- C $\frac{1}{4}$
- D $\frac{1}{5}$



Answer:

Answers

1 mark available for each question.

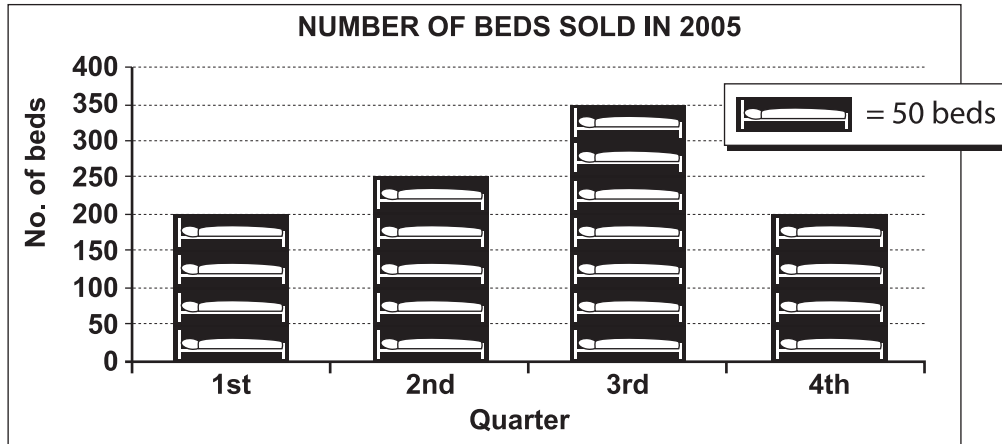
Mss1/E3.1

£269.00

N2/E3.2

B

- 15 The chart below shows how many beds a firm sold in 2005.



How many more beds did the firm sell in the 3rd quarter than in the 2nd quarter? Write A, B, C or D in the answer box.

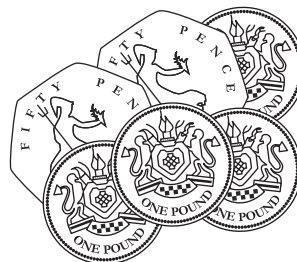
- A 100
- B 250
- C 350
- D 600

Answer:

- 16 After your first month at work you get a 10% pay rise.

Instead of £5.00 per hour, how much will you be paid?

Answer:



Answers

1 mark available for each question.

HD1/E3.2

A

N2/L1.10

£5.50

How are you doing?

**Happy to go on?
If not, tell the person in charge.**

17 You are allowed to take a break from your work for $\frac{1}{3}$ of an hour.

How many minutes is this? Write A, B, C or D in the answer box.

- A 3
- B 20
- C 30
- D 40

Answer:



Answers

1 mark available for each question.

N2/L1.2

B

18 In your work you sometimes have to work out the distances travelled by the delivery van.

On the mileage chart below what is the distance from Stoke to Norton?

Write A, B, C or D in the answer box.

	Axford	Cotley	Norton	Seaton	Stoke
Axford		20	14	17	40
Cotley	20		28	24	23
Norton	14	28		9	42
Seaton	17	24	9		22
Stoke	40	23	42	22	

- A 14
- B 40
- C 42
- D 54

Answer:

MSS1/L1.5

C

19

Your weekly wages are £328.50.

You have to pay the following every week:

Tax & National Insurance	£69.50
Bus fares	£14.50
Canteen lunches	£12.50

How much of your wages will you have left each week?

Answer:

Answers

1 mark available for each question.

MSS1/L1.1

£232.00

20

The table below shows the number of lawnmowers a company sold in 2005.

No. of lawnmowers sold.	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
	200	250	350	200

What is the average (mean) number of lawnmowers sold in each quarter?

Write A, B, C or D in the answer box.

- A 200
- B 250
- C 300
- D 350

Answer:

HD1/L1.3

B

How are you doing?

**Happy to go on?
If not, tell the person in charge.**

21

Your firm exports to four countries in Europe.

The value of last year's exports (to the nearest million pounds) is shown in the table below.

Country	Exports (£m)
France	24
Poland	4
Italy	6
Russia	2

What fraction of the value comes from the exports to France?

Write A, B, C or D in the answer box.

A $\frac{3}{4}$

B $\frac{1}{24}$

C $\frac{1}{6}$

D $\frac{2}{3}$

Answer:

Answers

1 mark available
for each question.

N2/L2.3

D

22

You are mixing concrete on a building site.

For the job you are doing you need to mix sand and cement in the ratio

5 sand : 2 cement

The cement mixer can take 14 bags in total.

How many bags of sand and cement will fill the mixer in the correct ratio?

Write A, B, C or D in the answer box.

- A 2 sand and 5 cement
- B 4 sand and 10 cement
- C 5 sand and 2 cement
- D 10 sand and 4 cement

Answer:

Answers

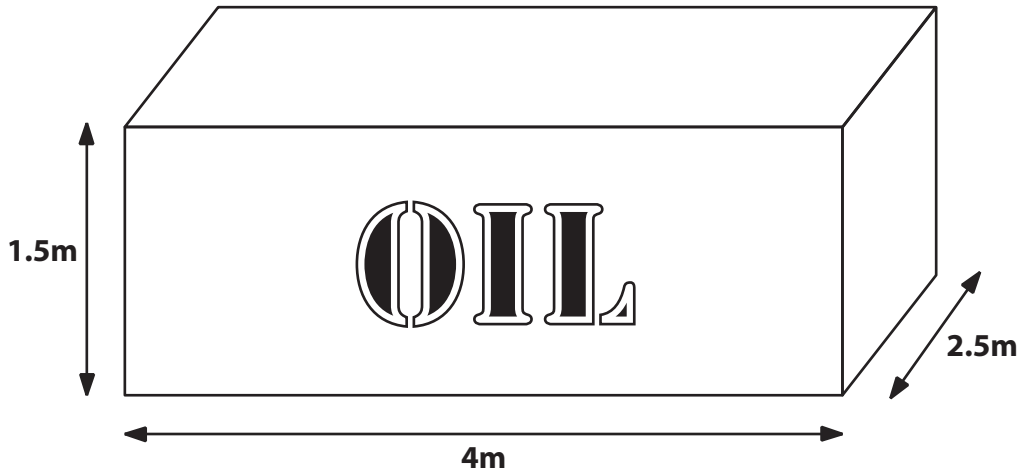
1 mark available
for each question.

N1/L2.3

D

23

An oil tank has the following dimensions:



Use the formula:

$$\text{Volume} = \text{length} \times \text{height} \times \text{width}$$

to calculate the volume of the tank.

Answer:

m^3

Answers

1 mark available
for each question.

MSS1/L2.9

15m³

24

You have to order 100 wooden boxes from Greece.

Each box costs €2.35 (euros)

The exchange rate is €1 = 0.70 GB pounds

How much will the order cost in GB pounds?

Answer:

Answers

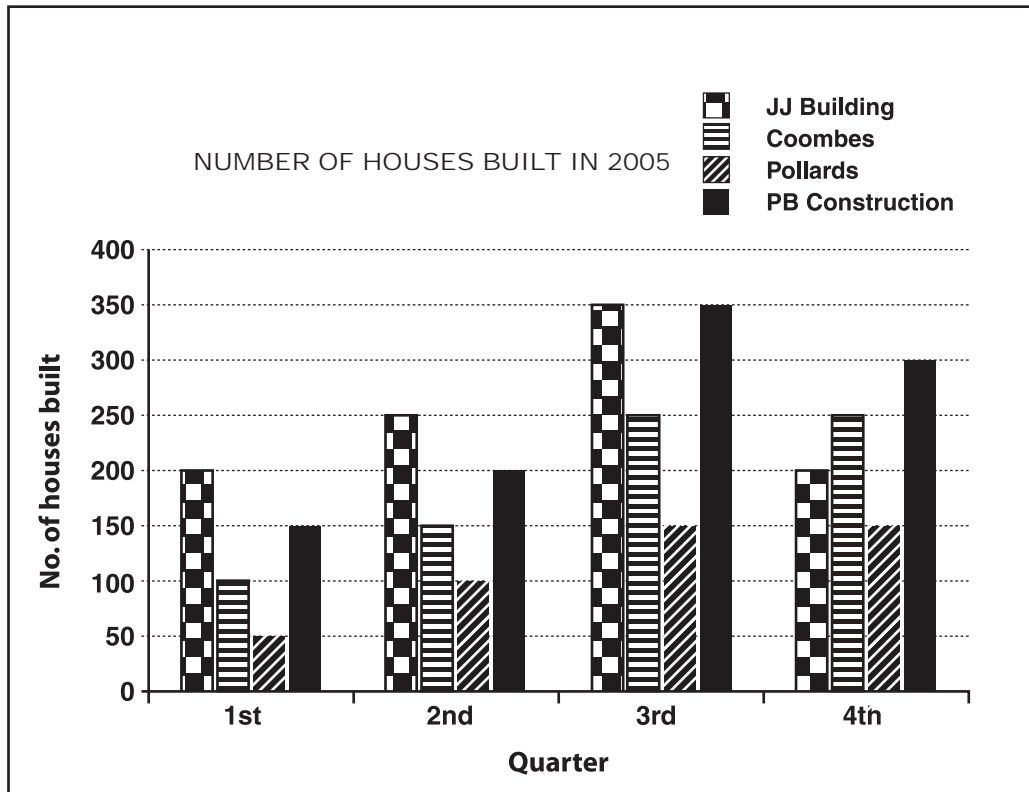
1 mark available
for each question.

MSS1/L2.1

£164.50

25

The chart below shows how many houses four different firms built in 2005.



Which firm's records show the widest range in the number of houses built per quarter? Write A, B, C or D in the box.

- A JJ Building
- B Coombes
- C PB Construction
- D Pollards

Answer:

Answers

1 mark available
for each question.

HD1/L2.4

C

Revised trial version 2006-2007

This item was produced as part of a suite of tools to assess learners for *Skills for Life* programmes. The tools were developed as part of a project which ran from 2003-2006. The project was jointly led by AlphaPlus Consultancy Ltd and BTL Group Ltd on behalf of the *Skills for Life* Strategy Unit (DfES).

These tools are part of an ongoing development process.

Feedback on the tools is therefore being encouraged and can be sent by email to:

assessment.feedback@qia.gsi.gov.uk

AlphaPlus Consultancy Ltd and BTL Group Ltd would like to thank all those who took part in the trials and contributed to the tools.

Support is available at:

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