



Numeracy Professional Skills Practice Test 2

This is a practice test adapted from Department for Education practice tests which can be found on sta.education.gov.uk/.

It has been designed to allow trainee teacher applicants to prepare for the Numeracy Professional Skills test which needs to be passed prior to the start of the course. This resource aims to familiarise applicants with question types and test format and provides practise in answering typical questions.

This test is comprised of two sections:

- *mental arithmetic* (12 questions)
 - allow 55 seconds to read and answer each question in this section
 - try not to go back to the questions as this will not be allowed in a real test
 - carefully read any instructions about the format of the answer, e.g. 'correct to two decimal places'
 - calculators **cannot** be used in this section
- *written data and arithmetic* (16 questions)
 - allow 36 minutes to complete this section
 - carefully read any instructions about the format of the answer, e.g. 'correct to two decimal places'
 - answers to the questions may involve: writing answers in the space provided, ticking correct answers, circling correct answers/areas on a table or graph
 - simple (four-function) calculators can be used in this section

Mental Arithmetic

Question 1

Eight out of 20 pupils got grade A in a test.

What fraction of pupils got grade A?

Give your answer in its lowest terms.

Answer:

Question 2

Year 4 pupils left school on a bus at 9: 15. The journey to and from Bath takes approximately 1 hour and 40 minutes each way. They spent 3 hours in the city.

What time did the pupils return to school?

Give your answer using the 24 –hour clock.

Answer: : hours

Question 3

What is five hundred and twenty-six multiplied by zero point zero one?

Answer: _____

Question 4

Primary school pupils were baking cakes and biscuits and then selling them to their parents. Money raised from this initiative was given to a charity.

Year 1 pupils sold fifteen slices of cake at £1.50 per slice and eighteen biscuits at £1.00 each.

How much money was collected for the charity by the Year 1 pupils?

Answer: £ _____

Question 5

In a primary school there are 18 classes with an average of 25 pupils in each of them.

How many pupils are in the school?

Answer: _____ **pupils**

Question 6

John got £50.00 of pocket money for his school trip to Madrid.

Taking 1.2 euros as equal to one pound, how much pocket money, in euros, did John have?

Answer: _____ euros

Question 7

A rectangular classroom is eight point five metres by six point five metres.

What is the area of the room in squared metres?

Answer: _____ m^2

Question 8

In the mock GCSE exam a pupil scored 55 points. In the real test the pupil improved the marks by twenty per cent.

How many points did the pupil get in the actual GCSE exam?

Answer: _____ **points**

Question 9

In a year group there are 120 pupils and all of them completed a survey. 48 pupils said that they didn't like maths.

What proportion of the year group likes maths?

Give your answer as a decimal.

Answer: _____

Question 10

A group of pupils went on a bike ride. They cycled a total of 312 kilometres. As an approximation, 8 kilometres is equal to 5 miles.

Using this approximation, how many miles did they cycle?

Answer: _____ **miles**

Question 11

In a year group of 150 pupils, 70% achieved grade A or B in a test. 35 pupils achieved grade A.
How many pupils received grade B?

Answer: _____ **pupils**

Question 12

There are eighteen classes and a total of five hundred and forty pupils in a school.

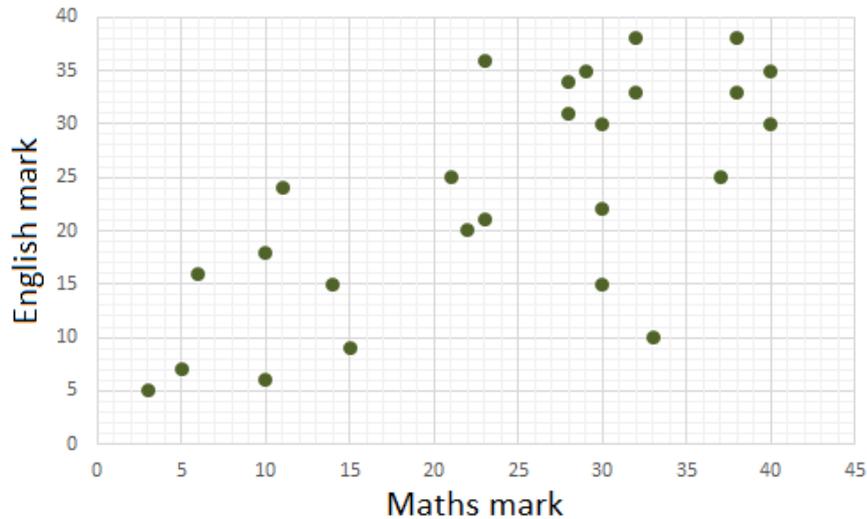
On average how many pupils are there in each class?

Answer: _____ **pupils**

Written Data and Arithmetic

Question 13

26 pupils in a class took Maths and English tests. Their results are plotted on the scatter-graph below.

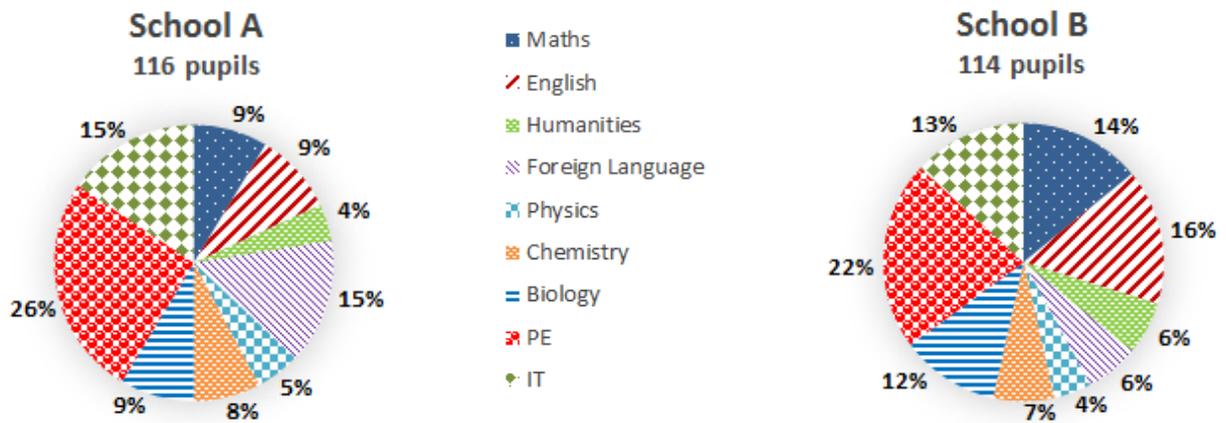


Tick all the true statements:

- The range of marks was wider for the Maths test than for the English test.
- Exactly 50% of pupils did better in English than they did in Maths.
- 13 pupils scored less than 25 marks on the Maths test.

Question 14

A selection of pupils from two schools answered a question about their favourite subject. The results are presented in pie charts.



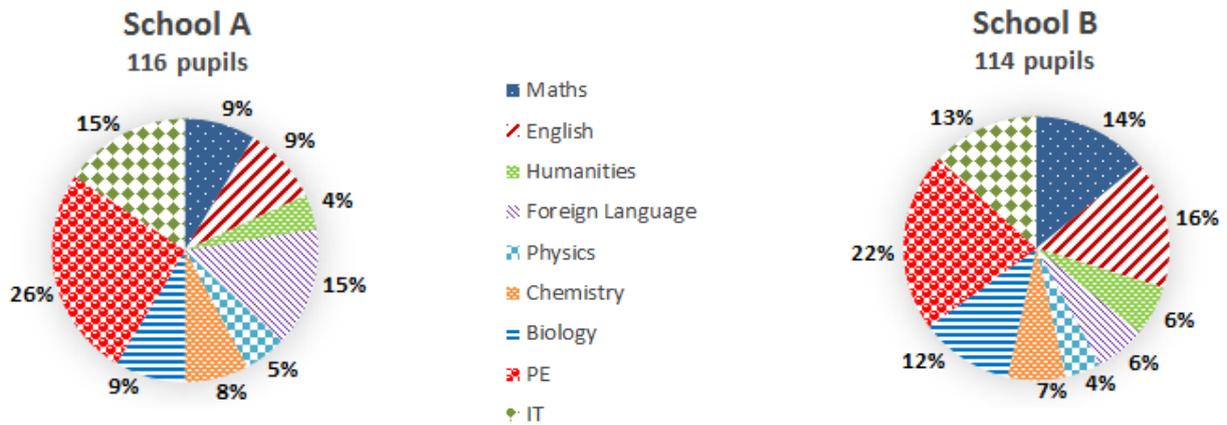
Percentages rounded to nearest whole number.

What is the highest percentage point difference between corresponding favourite subjects in School A and School B?

Answer: _____ %

Question 15

A selection of pupils from two schools answered a question about their favourite subject. The results are presented in pie charts.



Percentages rounded to nearest whole number.

How many more pupils like Maths best in School B than in School A?

Answer: _____ pupils

Question 16

The table below shows the time five random pupils from one year group spend on reading each week (given as decimals):

Pupil 1	3.5 hours
Pupil 2	2.2 hours
Pupil 3	0.65 hours
Pupil 4	1.3 hours
Pupil 5	4.1 hours

What is the total time, in hours and minutes, spent on reading by these five pupils?

Answer: _____ **hours and** _____ **minutes**

Question 17

A teacher was planning a school trip to Poland. Each pupil was allowed to take £80.00.

At the airport in the UK, £1 was equivalent to 4.80PLN. When pupils arrived in Poland, they exchanged their money at a rate 2.5% higher than the one in the UK.

How much more Polish money (PLN) did each pupil receive compared with the amount they would get in the UK?

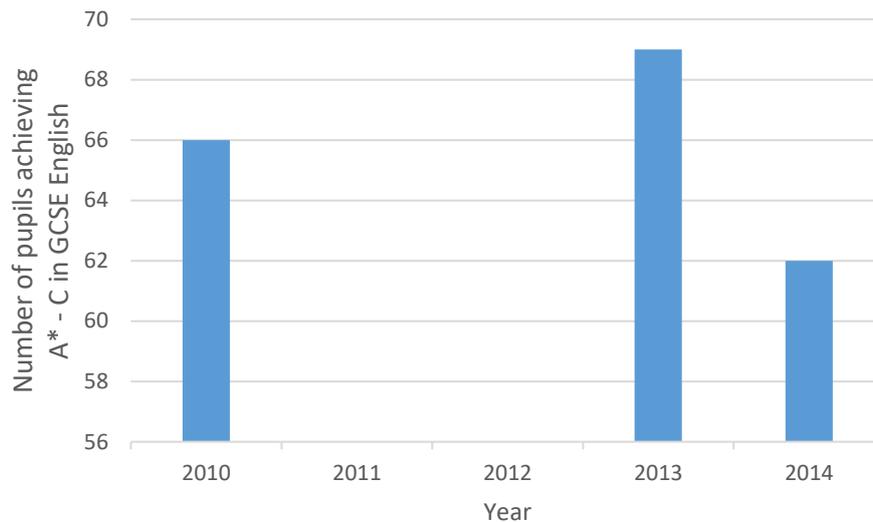
Give your answer correct to two decimal places.

Answer: _____ **PLN**

Question 18

A teacher presented the percentage of pupils achieving A* - C in GCSE English in the last five years using a bar chart. Two bars are missing from the chart but the teacher knows the percentage change between the years.

Between 2010 and 2011 there was a 6% decrease in the number of pupils achieving A* - C in GCSE English, whereas in 2013 there was a 3% increase in the number of pupils when compared with 2012.



Numbers rounded to nearest whole number.

What was the number of pupils achieving A* - C in GCSE English in 2011 and 2012?

Write your answer in the box next to the relevant year.

Answer:

2011: _____ pupils

2012: _____ pupils

Question 19

Pupils took two exams and, depending on their final percentage mark rounded to the nearest integer, they were assigned one of the following grades:

A for 80 – 100%

B for 70 – 79%

C for 60 – 69%

D for 40 – 59%

E for 30 – 39%

F for 0 – 29%

The table below shows the results from two exams for three pupils.

Pupil	Exam 1 (marks out of 60)	Exam 2 (marks out of 80)
A	46	70
B	43	67
C	40	72

Final percentage mark

$$= \frac{2}{5} \times \text{exam 1 percentage mark} + \frac{3}{5} \times \text{exam 2 percentage mark}$$

Which pupil got grade B?

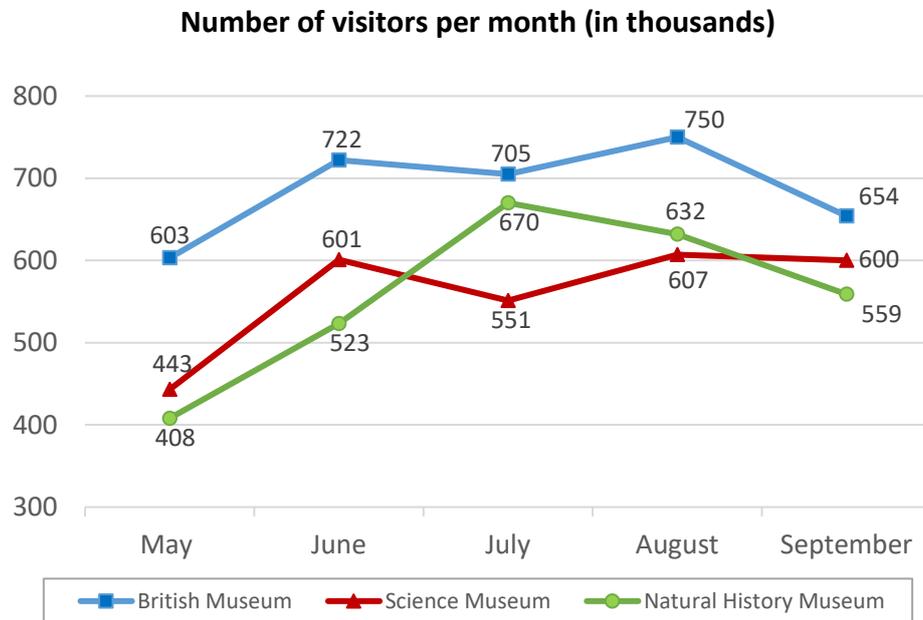
Pupil A

Pupil B

Pupil C

Question 20

Year 6 pupils had some school trips to museums planned. The year leader used a graph to show the number of visitors in three main museums in London.



Tick all the true statements:

- In May, all three museums had the lowest number of visitors across five months.
- The smallest difference in the number of visitors between the Science Museum and the Natural History Museum was in September.
- The Natural History Museum has the widest range in the number of visitors.

Question 21

It took 20 pupils to feed 176 cows.

How many cows would 25 pupils feed in the same amount of time?

Give your answer to the nearest whole number.

Answer: _____ **cows**

Question 22

Years 4, 5 and 6 are competing for the best attendance each month.

The attendance between January and June is presented in the table below.

Circle the class(es) who show a consistent trend of improvement in attendance over the six-month period.

Class	Jan	Feb	Mar	Apr	May	Jun
4a	95.3	95.5	95.8	96.2	96.6	96.8
4b	96.2	96.6	96.6	96.7	96.9	97.3
4c	97.2	97.5	97.8	98.1	98.4	98.7
5a	96.6	96.9	97.0	97.3	97.6	97.9
5b	98.2	98.2	98.2	98.2	98.2	98.2
5c	97.6	97.8	97.9	98.0	98.1	98.3
6a	90.2	90.6	91.0	91.4	91.8	92.2
6b	93.6	93.1	97.1	97.6	98.1	98.6
6c	94.6	94.8	95.3	95.8	96.2	96.6

Question 23

Years 4, 5 and 6 are competing for the best attendance each month.

The attendance between January and June is presented in the table below.

Class	Jan	Feb	Mar	Apr	May	Jun
4a	95.3	95.5	95.8	96.2	96.6	96.8
4b	96.2	96.6	96.6	96.7	96.9	97.3
4c	97.2	97.5	97.8	98.1	98.4	98.7
5a	96.6	96.9	97.0	97.3	97.6	97.9
5b	98.2	98.2	98.2	98.2	98.2	98.2
5c	97.6	97.8	97.9	98.0	98.1	98.3
6a	90.2	90.6	91.0	91.4	91.8	92.2
6b	93.6	93.1	97.1	97.6	98.1	98.6
6c	94.6	94.8	95.3	95.8	96.2	96.6

What proportion of the competing classes achieved at least two percentage points increase in attendance over the six-month period?

Give your answer as a decimal to one decimal place.

Answer: _____

Question 24

Pupils are baking gingerbread men. They all use the following recipe:

- 350g plain flour
- 100g butter
- 5.5 teaspoons ground ginger
- 1.5 teaspoons ground cinnamon
- 1 teaspoon bicarbonate soda
- 175g light brown soft sugar
- 4 tablespoons golden syrup
- 1 medium egg

Pupils want to use all the 550g of butter they were given and want to follow the recipe.

How much plain flour, ground ginger and ground cinnamon do they need?

Give your answers as decimals.

Answer:

_____ plain flour

_____ teaspoons ground ginger

_____ teaspoons ground cinnamon

Question 25

The table shows the information about the marks achieved by pupils in GCSEs for three subjects.

	Mark (Percentages)		
	Range	Median	Mode
Mathematics	30	40	52
English	67	50	55
Science	50	60	70

Tick all the true statements:

- Some pupils achieved less than 20% in Mathematics.
- At least one pupil achieved more than 60% in English.
- All pupils achieved at least 20% in Science.

Question 26

A 10 kilometre race started at 9:00. The average speed of the winner was 7.5 miles per hour.

Using the approximation of 8 kilometres equals 5 miles,

what time did the winner complete the race?

Answer: : hours

Question 27

Three schools, all from different countries, were collecting money which was then sent to Kenya to support a mission.

Country	Money collected	Exchange rate to Kenyan Shilling
United Kingdom	£116.50	132.22
France	€148	116.05
U.S.A.	\$253.80	103.55

In Kenyan Shillings how much was sent to support the mission?

Give your answer correct to two decimal places.

Answer: _____ **Kenyan Shillings**

Question 28

The marks two pupils achieved in test 2 were significantly different to those achieved in test 1.

Pupil	Pupils' percentage mark	
	Test 1	Test 2
A	40	
B	62	

The marks of pupil A increased by 27% and decreased by 15% for pupil B.

What was the mark achieved by these two pupils in test 2?

Give your answer to the nearest whole number.

Answer:

Pupil A: _____ %

Pupil B: _____ %

END OF TEST

This resource was produced by the **sigma** Network Employability Special Interest Group whose members are:

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