



BROAD HORIZON
—TUITION CENTRE—

11+ Tuition – Year 4 Week 1

Name: _____

Date: _____

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Starter Task - Quick Revision

You should already know your times tables up to 12 x 12, here's a short test to see how you do! **You have 90 seconds!**

1) $4 \times 5 =$	2) $7 \times 8 =$	3) $6 \times 3 =$
4) $12 \times 7 =$	5) $6 \times 7 =$	6) $4 \times 8 =$
7) $3 \times 9 =$	8) $5 \times 12 =$	9) $9 \times 12 =$
10) $9 \times 7 =$	11) $8 \times 9 =$	12) $2 \times 3 =$
13) $7 \times 3 =$	14) $6 \times 8 =$	15) $5 \times 6 =$
16) $9 \times 5 =$	17) $6 \times 6 =$	18) $3 \times 8 =$
19) $11 \times 12 =$	20) $5 \times 7 =$	21) $8 \times 8 =$
22) $7 \times 7 =$	23) $12 \times 8 =$	24) $6 \times 4 =$
25) $8 \times 5 =$	26) $12 \times 9 =$	27) $4 \times 12 =$
28) $6 \times 9 =$	29) $9 \times 4 =$	30) $7 \times 4 =$

30

Maths

Explanation - Multiplying and Dividing Numbers by 10, 100 and 1000

Lo: To multiply and divide by 10 and 100.

I know that when I multiply, I move to the right.

I know that when I divide, I move to the left.

Multiplication Rule



Move the decimal point to the **right**.

This depends on how many zero's the number you're multiplying by has.

E.g. If you're multiplying by 10 you will move the decimal point once to the right.

If you're multiplying by 1000 you will move the decimal point 3 times to the right.

Division Rule



Move the decimal point to the **left**.

This depends on how many zero's the number you're dividing by has.

E.g. If you're dividing by 100 you will move the decimal point twice to the left.

Remember: If the number **does not** have a decimal point, then you need to add the decimal point in at the end of the number before you start.

E.g. $57 = 57.0$

Practice – Multiplying by 10, 100 and 1000**Whole numbers:**

1) $7 \times 10 =$

2) $56 \times 100 =$

3) $730 \times 1000 =$

4) $896 \times 100 =$

5) $700 \times 100 =$

6) $34 \times 10 =$

Decimal numbers:

7) $6.2 \times 100 =$

8) $3.5 \times 10 =$

9) $7.3 \times 100 =$

10) $0.96 \times 10 =$

11) $1.9 \times 1000 =$

12) $0.45 \times 1000 =$

Mixed:

1) $72 \times 10 =$

3) $83 \times 100 =$

5) $564 \times 1000 =$

7) $22.6 \times 100 =$

9) $3.4 \times 100 =$

11) $967 \times 10 =$

13) $7.24 \times 10 =$

2) $835 \times 100 =$

4) $6.8 \times 10 =$

6) $7.1 \times 100 =$

8) $8479 \times 10 =$

10) $5165 \times 1000 =$

12) $0.045 \times 10 =$

14) $0.592 \times 1000 =$

Practice – Dividing by 10, 100 and 1000**Whole numbers:**

1) $600 \div 10 =$

2) $3400 \div 100 =$

3) $96000 \div 1000 =$

4) $7300 \div 100 =$

5) $900 \div 100 =$

6) $640 \div 10 =$

Decimal numbers:

7) $13 \div 100 =$

8) $56 \div 10 =$

9) $820 \div 100 =$

10) $5 \div 10 =$

11) $83 \div 1000 =$

12) $0.62 \div 100 =$

Mixed:

13) $72 \div 10 =$

14) $6520 \div 100 =$

15) $5000 \div 1000 =$

16) $9854 \div 100 =$

17) $3400 \div 100 =$

18) $95620 \div 10 =$

19) $95000 \div 10 =$

20) $0.36 \div 100 =$

21) $9.52 \div 10 =$

22) $145.5 \div 100 =$

23) $9500 \div 10 =$

24) $92500 \div 1000 =$

25) $0.056 \div 10 =$

26) $695100 \div 1000 =$

Further Practice – Multiplying and Dividing by 10, 100 and 1000

$5 \times 10 = \underline{\hspace{2cm}}$

$5 \div 10 = \underline{\hspace{2cm}}$

$6 \times 100 = \underline{\hspace{2cm}}$

$8 \div 10 = \underline{\hspace{2cm}}$

$7 \div 10 = \underline{\hspace{2cm}}$

$7 \times 100 = \underline{\hspace{2cm}}$

$4 \times 10 = \underline{\hspace{2cm}}$

$8 \times 10 = \underline{\hspace{2cm}}$

$70 \div 100 = \underline{\hspace{2cm}}$

$3 \times 100 = \underline{\hspace{2cm}}$

$6 \times 10 = \underline{\hspace{2cm}}$

$2 \div 10 = \underline{\hspace{2cm}}$

$2 \times 100 = \underline{\hspace{2cm}}$

$80 \div 100 = \underline{\hspace{2cm}}$

$28 \div 10 = \underline{\hspace{2cm}}$

$9 \times 10 = \underline{\hspace{2cm}}$

$34 \times 10 = \underline{\hspace{2cm}}$

$65 \div 10 = \underline{\hspace{2cm}}$

$65 \times 100 = \underline{\hspace{2cm}}$

$42 \div 10 = \underline{\hspace{2cm}}$

$53 \div 10 = \underline{\hspace{2cm}}$

$17 \times 100 = \underline{\hspace{2cm}}$

$87 \times 10 = \underline{\hspace{2cm}}$

$453 \times 10 = \underline{\hspace{2cm}}$

$785 \div 100 = \underline{\hspace{2cm}}$

$34 \times 100 = \underline{\hspace{2cm}}$

$64 \times 10 = \underline{\hspace{2cm}}$

$24 \div 10 = \underline{\hspace{2cm}}$

$39 \times 100 = \underline{\hspace{2cm}}$

$124 \div 100 = \underline{\hspace{2cm}}$

$283 \div 10 = \underline{\hspace{2cm}}$

$736 \times 10 = \underline{\hspace{2cm}}$

$874 \times 10 = \underline{\hspace{2cm}}$

$2264 \div 10 = \underline{\hspace{2cm}}$

$275 \times 100 = \underline{\hspace{2cm}}$

$765 \div 10 = \underline{\hspace{2cm}}$

$3873 \div 10 = \underline{\hspace{2cm}}$

$817 \times 100 = \underline{\hspace{2cm}}$

$673 \times 10 = \underline{\hspace{2cm}}$

$734 \times 10 = \underline{\hspace{2cm}}$

$3802 \div 100 = \underline{\hspace{2cm}}$

$403 \times 100 = \underline{\hspace{2cm}}$

$204 \times 10 = \underline{\hspace{2cm}}$

$1864 \div 10 = \underline{\hspace{2cm}}$

$309 \times 100 = \underline{\hspace{2cm}}$

$3908 \div 100 = \underline{\hspace{2cm}}$

$3002 \div 10 = \underline{\hspace{2cm}}$

$8764 \times 10 = \underline{\hspace{2cm}}$

$4000 \div 100 = \underline{\hspace{2cm}}$

$201 \times 100 = \underline{\hspace{2cm}}$

Working out space:

Challenge – Multiplying and Dividing by 10, 100 and 1000

Fill in the missing numbers:

$7 \times \underline{\quad} = 700$

$64 \div \underline{\quad} = 6.4$

$30 \div \underline{\quad} = 0.3$

$3 \times \underline{\quad} = 30$

Fill in the space with either \times or \div so that the calculation is correct:

$62 \underline{\quad} 10 = 6.2$

$4 \underline{\quad} 10 = 40$

$5 \underline{\quad} 100 = 500$

$40 \underline{\quad} 100 = 0.4$

True (T) or False (F):

$7 \times 100 = 70 \quad \square$

$79 \div 10 = 790 \quad \square$

$30 \div 100 = 0.3 \quad \square$

$1 \times 10 = 10 \quad \square$

Fill in the missing numbers:

$67 \times \underline{\quad} = 670$

$68 \div \underline{\quad} = 6.8$

$640 \div \underline{\quad} = 6.4$

$73 \times \underline{\quad} = 7300$

Fill in the space with either \times or \div so that the calculation is correct:

$542 \underline{\quad} 10 = 54.2$

$46 \underline{\quad} 10 = 460$

$473 \underline{\quad} 100 = 4.73$

$37 \underline{\quad} 10 = 370$

True (T) or False (F):

$67 \times 100 = 670 \quad \square$

$809 \div 10 = 80.9 \quad \square$

$568 \div 100 = 0.568 \quad \square$

$64 \times 10 = 640 \quad \square$

Fill in the missing numbers:

$467 \times \underline{\hspace{2cm}} = 4670$

$683 \div \underline{\hspace{2cm}} = 68.3$

$536 \div \underline{\hspace{2cm}} = 5.36$

$855 \times \underline{\hspace{2cm}} = 85\ 500$

Fill in the space with either \times or \div so that the calculation is correct:

$742 \underline{\hspace{1cm}} 10 = 74.2$

$4230 \underline{\hspace{1cm}} 10 = 42\ 300$

$873 \underline{\hspace{1cm}} 100 = 8.73$

$767 \underline{\hspace{1cm}} 10 = 7670$

True (T) or False (F):

$287 \times 100 = 28\ 700 \quad \square$

$209 \div 10 = 2.09 \quad \square$

$176 \div 100 = 600 \quad \square$

$602 \times 10 = 6200 \quad \square$

Working out space:

Further Challenge – Multiplying and Dividing by 10, 100 and 1000

Complete the following table, giving answers to 3 decimal places.

	$\times 10$	$\div 10$	$\div 100$
507			
17.6			
			0.063
	2037		
		0.193	

Complete the following table, giving answers to 3 decimal places.

	$\times 1000$	$\times 10$	$\div 100$
607			
4 901			
		0.8	
	17 809		
			0.37

Complete the following table, giving answers to 3 decimal places.

	$\div 1000$	$\times 100$	$\div 10$
6.45			
0.501			
			93.6
	7.18		

English - Grammar

Abstract nouns

An abstract noun names something that does not physically exist and so cannot be touched. The names of qualities and characteristics, emotions and feelings, concepts and ideas are abstract nouns.

For example:

happiness beauty imagination

Can you think of any others? List them below

- 1.
- 2.
- 3.
- 4.
- 5.

Choose three of your words from above and make one sentence with each of them.

- 1.
- 2.
- 3.

English – Comprehension

Comprehension techniques

1. **Read** the story once, **imagine** the story taking place. Carefully, **thinking** about what every sentence means. (**Inference**)
2. If you do not understand something in the text, you **do not skip over it!** Go back and read it again until you understand it.
3. Then **skim** through the text a second time round, because this is a new text and by the time you get to the end you will not remember what the story was about.

Before answering each and every question you should go through this process;

1. **Always refer back to the text** and think carefully does this answer the question which was asked.
2. Sometimes you may need to piece together information from multiples parts of the text, you might not find the answer all on the same line or paragraph.

For example: to answer question one, you may need to take information from line 3 and line 17 and then piece them together to get your answer – this is why it is important to **read the whole text before you answer any of the questions.**

How to find something in the text

1. **Look for key words** in the questions and search for them in the text
2. You should **focus** enough when you're reading the text the first time round that you are **aware of where to find** things roughly, is it in the middle of the page you need to look? Is it on the last page?

If you struggle to go through this process within the time limit given for the comprehension then you can extend the time by 5 minutes until you are familiar with the process after which you need to go back to working within the time limit for the remaining comprehension tests.

Comprehension Practice with Spelling and Punctuation

Now read this text and see if you can find any abstract nouns, if you do then highlight them!

The Dinosaur Dipper

Sanjay and his dad had been waiting in the queue for the roller coaster for a long time. Bored, Sanjay tugged Dad's sleeve, "Are we nearly at the front?"

When the family had arrived at the theme park that morning they'd bought their tickets from a friendly lady who was dressed as a cavewoman. When they
5 walked through the gates of the theme park, the Dinosaur Dipper roller coaster was the first thing Sanjay had seen. It towered over the other rides, its shiny green track looping high above the ground. Brightly-painted carriages zoomed along the tracks, and the passengers' excited cries echoed through the air.

"Can we go on that ride, Dad?" Sanjay had begged. "Please?"

10 "Be patient," Dad had replied. "We're going to take Maya on some smaller rides first." Maya was Sanjay's baby sister. She was only three, but she was running around and shouting excitedly because she was happy to be out of her pram.

Finally, Dad and Sanjay had left Maya and Mum at the café and made their way towards the Dinosaur Dipper, where they had queued for what seemed like hours.

15 All of a sudden, the queue in front of them surged forwards, and Sanjay saw an official-looking man helping people onto the ride. Sanjay watched a group of teenagers climb excitedly into the colourful carriages. They chatted and giggled as they strapped the safety belts on tightly. With a loud clang and a clatter, the carriages shot forward.

20 Sanjay felt butterflies in his stomach. Suddenly the ride seemed very high and very fast. He wasn't sure that it looked fun after all. Before Sanjay could say anything, Dad turned around and took his hand.

"Come on, it's our turn!" he said.

The crowd hurried forward and Sanjay was swept through the gate. Dad led
25 him towards a carriage with a huge grin on his face.

"This is going to be fun!"

Answer these questions about the text that you've just read.
Circle the letter that matches the correct answer.

1. What did Sanjay see when he first entered the theme park?
 - A Lots of people
 - B The gift shop
 - C Some smaller rides
 - D The Dinosaur Dipper
 - E The café

2. Why did Sanjay not go on the Dinosaur Dipper straight away?
 - A He was frightened.
 - B He didn't think it looked fun.
 - C Maya wanted to go on it later.
 - D The queue was too long.
 - E They took Maya on some other rides first.

3. Who did Sanjay see while he was waiting in the queue for the roller coaster?
 - A A man selling ice creams
 - B One of his friends from school
 - C A man checking tickets
 - D People taking photographs
 - E Someone helping people onto the ride

4. Which of the following statements is not true?
 - A Sanjay and his dad queued for the ride for a long time.
 - B The teenagers ahead of Sanjay put on their safety belts.
 - C The teenagers ahead of Sanjay were nervous about the ride.
 - D The ride made a loud sound as it set off.
 - E The carriages moved very quickly when the ride set off.

5. Which of these two words describe the Dinosaur Dipper?
 - A Bright and colourful
 - B Boring and empty
 - C Tall and slow
 - D Small and loopy
 - E Fast and straight

Answer these questions about the text that you've just read.
Circle the letter that matches the correct answer.

6. What does Sanjay think about the roller coaster when he reaches the end of the queue?
- A He thinks it might break down.
 - B He thinks it will be really boring.
 - C He thinks it won't be very enjoyable.
 - D He thinks it will be exciting.
 - E He thinks it looks like a ride for small children.
7. Where is Maya while Sanjay and his dad are waiting to get on the Dinosaur Dipper?
- A On a smaller ride
 - B With Mum in the café
 - C On the roller coaster already
 - D In the queue with them
 - E In the ticket office with Mum

/ 2

Answer these questions about the way words and phrases are used in the passage.

8. Which of these words is closest in meaning to “tugged” (line 2)?
- A Touched
 - B Pulled
 - C Pushed
 - D Moaned
 - E Helped
9. Which of these words is closest in meaning to “chatted” (line 17)?
- A Smiled
 - B Whispered
 - C Shouted
 - D Talked
 - E Laughed
10. What is meant by the expression “Sanjay was swept through the gate” (line 24)?
- A Sanjay was pushed through the gate quickly.
 - B Sanjay fell over before he reached the gate.
 - C Sanjay walked calmly through the gate.
 - D Sanjay turned around and left the queue.
 - E Sanjay jumped over the gate.

/ 3

Answer these questions about the way words and phrases are used in the passage.

11. What type of words are “echoed” (line 8) and “begged” (line 9)?

- A Nouns
- B Adverbs
- C Adjectives
- D Verbs
- E Similes

12. “Dad led him towards a carriage with a huge grin on his face” (lines 24-25). Which of these words is an adjective?

- A Dad
- B towards
- C carriage
- D huge
- E grin

/ 2

Choose the right word or phrase to fill the gap.
Circle the letter which matches the correct word.

13. Yesterday, Jen **ask say told speak telled** me all about the day she spent with

- A B C D E**

14. Malik. She had asked me to go with them, but I **not couldn't do can would go**

- A B C D E**

15. because I **are has will had is** to stay in to help my mum. Jen described the den

- A B C D E**

16. they made in the woods. First, they tied a rope **until since between in though**

- A B C D E**

17. two trees **and if while because soon** then put a plastic sheet over it. Next, they

- A B C D E**

18. collected sticks and twigs **by if to so and** cover the sheet so it would blend

- A B C D E**

19. into the trees. **Finally First Second But Once** , they put dried leaves on the

- A B C D E**

20. floor of the den and **sat seated sitting seat sit** in it all afternoon.

- A B C D E**

/ 8

In each sentence, there is one punctuation mistake. Circle the letter which matches the part of the sentence with the mistake.

21. Fran made a giant white chocolate and raspberry cake for her older brother’s birthday?

A B C D E

22. “Shut up! shouted Mum angrily, when the boys started to argue over the last ice lolly.

A B C D E

23. I would’nt have believed that it was true if I hadn’t seen it happen with my own eyes.

A B C D E

24. While I was in London, I went to Buckingham Palace with, my friends Anne and John.

A B C D E

25. The three naughty girl’s quickly ran down the street, turned the corner and disappeared.

A B C D E

/ 5

In each sentence, there is one spelling mistake. Circle the letter which matches the part of the sentence with the mistake.

26. The brave explorer slowly and carefully wallked across the rocky, narrow ledge to safety.

A B C D E

27. George gave his sister a generous peace of chocolate cake and a big glass of lemonade.

A B C D E

28. Edwin wasn’t as good as Hasan at tennis, but he could eassely beat him at badminton.

A B C D E

29. After a lot of thought, Julia decided to buy a skirt because the weather was so suny.

A B C D E

30. The children all had a wonderfull time on their holiday in the south of Spain.

A B C D E

/ 5

Total / 30

Verbal Reasoning

GL Techniques – Odd Word Out

Four of the words in each list are linked. Underline the word that is **not** related to the other four. Look at this example:

cow hen sheep pig monkey

1. robin crow wren hamster sparrow
2. cloudy morning windy raining sunny
3. lawn flowerbed sofa patio shed
4. lord princess king duke prince
5. car ship lorry van bus

Hint: If you're stuck, try to picture all the objects in your head and think about what they have in common.

1 / 5

6. potato banana carrot parsnip turnip
7. pile heap line stack mound
8. bed oven kettle microwave fridge
9. wool needle thread yarn string
10. shorts jumper trousers skirt leggings

1 / 5

11. gold ruby emerald sapphire diamond
12. boot bonnet exhaust wheel driver
13. clock second minute hour day
14. chalet flat bungalow office cottage
15. blonde ginger coral brunette auburn



1 / 5

GL Techniques – Type One

TECHNIQUE TYPE ONE

Here you are simply required to identify **TWO** words which have changed places with each other. These deliberately misplaced words must be identified and by rearranging the two words in your head, a sensible sentence can be made. You must underline the two words to gain one mark. All other words must remain in the same order.

Example:

Play went outside to Sarah.

Here, *play* and *Sarah* have swapped places, so *play* and *Sarah* should be underlined. The sentence should read:

Sarah went outside to play.

Technique:

1. Read the sentence quickly.
2. Look up. (Take your eyes off the words.)
3. Think: What is this sentence trying to say?
4. Decide on the answer. (If possible without looking back at the sentence.)
5. Look back and mentally make the sentence say it. Underline the misplaced words.
6. Reread the sentence with the misplaced words you have underlined, mentally corrected.
7. Check the sentence does make sense.

NOTE:

1. Once you have discovered the first of the two words which is out of place, this will automatically change places with the word which should go in its place. In the above example, once you realise *play* is out of order and that it should read '*Sarah* went.....' then *Sarah* must automatically be the other word which is out of place. In other words it is really only necessary to discover the first word which is wrongly placed. The second word should then automatically present itself.

2. Occasionally the uncorrected sentence has been written so two identical words, such as *the* and *the*, have been deliberately placed next to each other. If it is necessary to underline one of the words 'the', be sure to underline the correct

Examples

the. For this reason it is VERY important you always check your answer makes complete sense.

Example:

The cat sat on the mat, may be rewritten
 On cat sat the the mat.

Which *the* should be underlined?

The first one.

To underline any 'the' without checking is careless and may cost you a mark.

Take care!

3. Occasionally, also, two adjacent words (words next to each other) have changed places. This sometimes makes it more difficult to see. Read the sentence slowly and carefully and reread it if necessary before looking up and deciding what the sentence should say.

Example:

Answers:

What time it is?	<i>is</i>	<i>it</i>
How it is you came first?	<i>is</i>	<i>it</i>
When you are coming to my house?	<i>are</i>	<i>you</i>
Is now the time for celebration.	<i>now</i>	<i>is</i>

4. Look carefully to see if the sentence asks a question. Is there a question mark at the end of the sentence? If it is meant to, make it. If it does not have a question mark, it does not ask a question. It is a statement. Make sure then it states a fact.

Example:

It is a cold day? should be corrected to read
 Is it a cold day?
 as there is a question mark at the end of the sentence.

Is milk good for you. should be corrected to read
 Milk is good for you.
 as there is a full stop at the end of the sentence. It states a fact.

You are allowed 30 seconds per question.

Now turn to the next page for Practice of this Type.

Practice**PRACTICE TYPE ONE**

Underline the TWO words which should change places with each other in order to make sense of the following sentences.

For Example:

He put a desk on his book.

Now try these:

The boy kicked the the into ball net.

The dog lay next his to basket.

The rabbit scampers into the field and across its burrow.

Quickly car sped the along the motorway.

The fireman climbed down the tree to bring up the cat.

The cold fire warmed up the hot room.

Boy Scouts enjoy sleeping in out the open air.

She took her scarf out of the drawer and put into it her bag.

Milk is good for you ?

Put the table under the slippers.

Please quiet be in the library !

Deck standing on the top no of the bus.

No eating church in !

Take your cloakroom out of the shoes.

Thirty nine and forty two make seventy seven.

If tomorrow is Friday yesterday was Sunday.

Suddenly the lights went in out the theatre.

She looked herself at in the mirror.

Do not in come through the window !

The bend trees fir in the wind.

Shuffled Sentences

Test 1

Rearrange each sentence using all the words and write the correct sentence on the line below it

1. floated she like the in a starfish pool

2. neck branches giraffe stretched the top to its the reach

3. mud the hippo cool the wallowed in

4. sirens the heard be crash could racing to police

5. scene fire-engine the fire of the to the raced

6. escaped hole sheep the through a the hedge in

7. astonishment cows the up looked in

8. little the red field bumped tractor the across

9. dreamed tractor owning of I my own

10. the Olympics watched mounting she with excitement

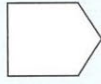
Non-Verbal Reasoning

Shapes

Warm Up

1. How many **sides** does each shape have?

a.



5

b.



—

c.



—

d.



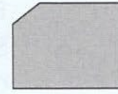
—

e.



—

f.



—

2. How many of the **grey shapes** on the right have the **same number** of **sides** as the grey shape inside the square?

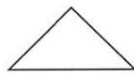
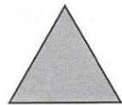


Number of grey shapes with same number of sides:

Find the Figure Like the First Two

Work out which option is most like the two figures on the left.

Example:



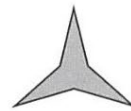
a



b



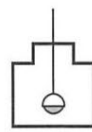
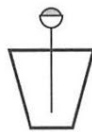
c



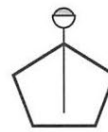
d

All figures must have three sides. (b)

3.



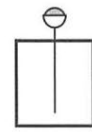
a



b



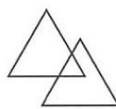
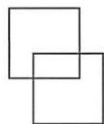
c



d

()

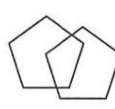
4.



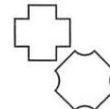
a



b



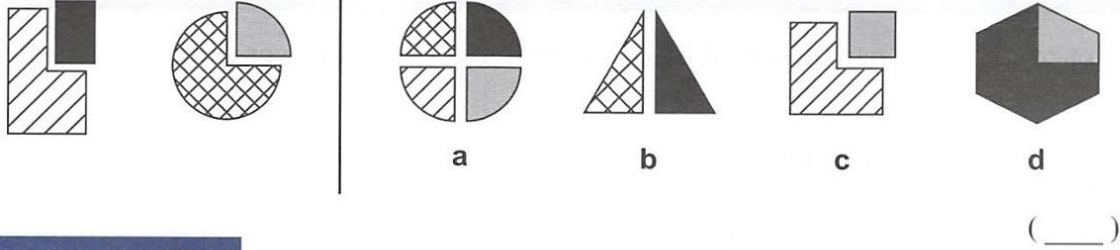
c



d

()

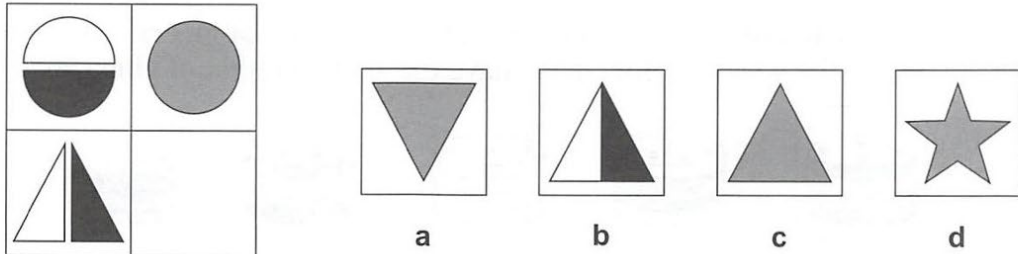
5.



Complete the Grid

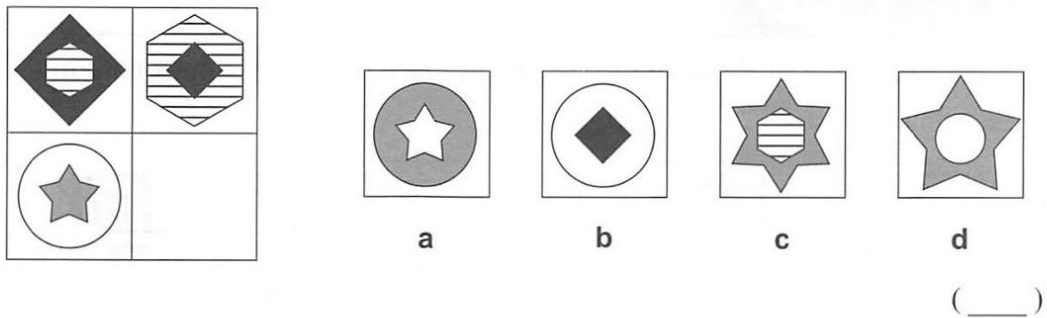
Work out which of the options best fits in place of the missing square in the grid.

Example:

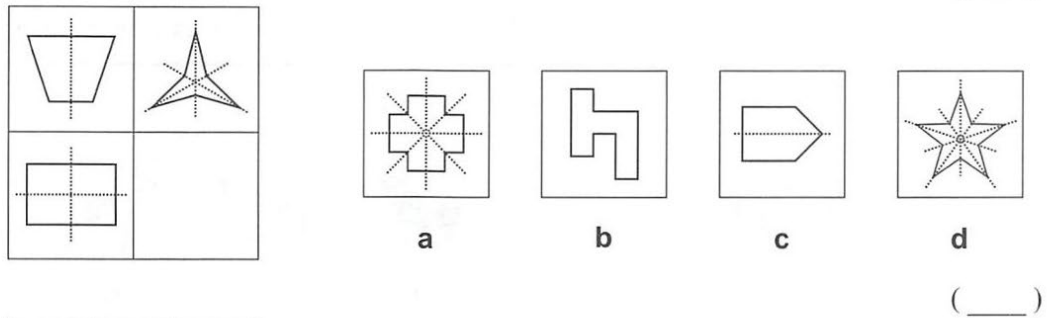


The black and white shapes combine to make a grey shape. (C)

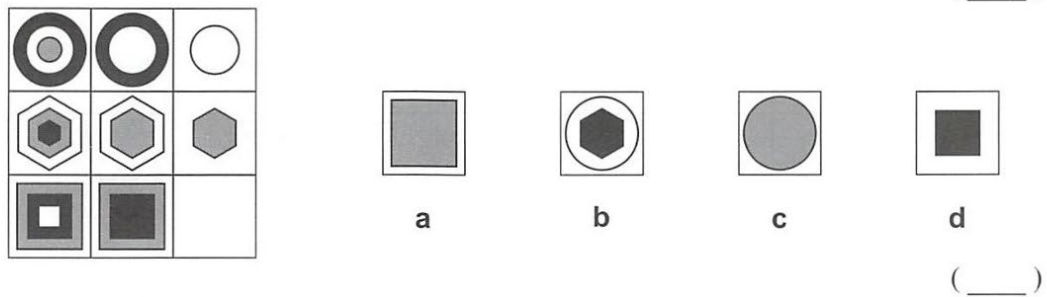
6.



7.



8.

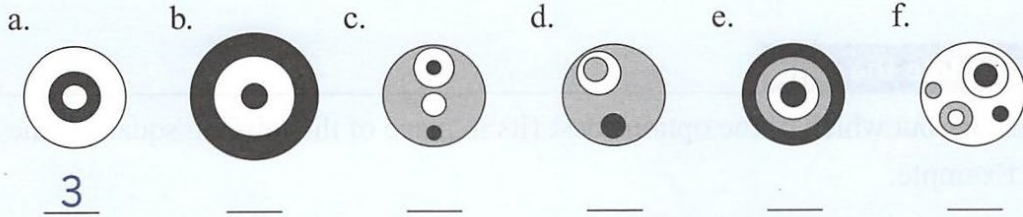


Counting

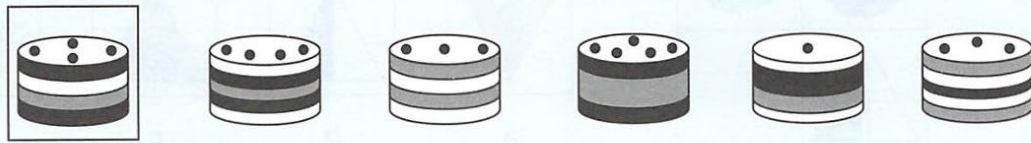
A lot of questions can be solved by counting things like shapes or dots.

Warm Up

1. How many **circles** are there in each figure?



2. How many of these cakes have the **same** number of **layers** as the one inside the square? How many have the **same** number of **cherries**?



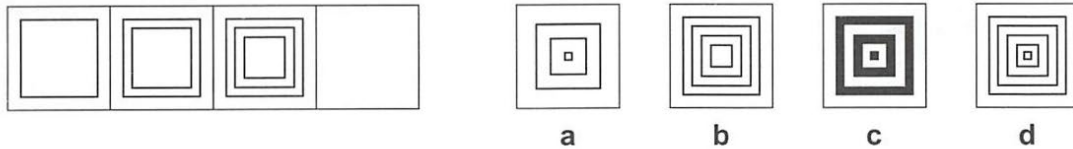
Number of cakes with the **same** number of **layers**: ____

Number of cakes with the **same** number of **cherries**: ____

Complete the Series

Work out which of the options best fits in place of the missing square in the series.

Example:



An extra square is added in each series square. (b)

3.



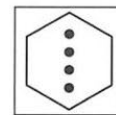
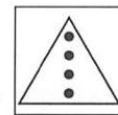
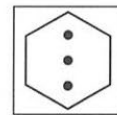
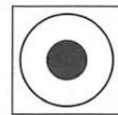
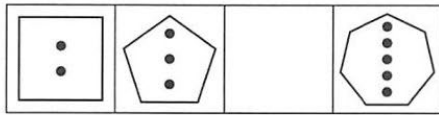
()

4.



()

5.



a

b

c

d

()

Find the Figure Like the First Three

Work out which option is most like the three figures on the left.

Example:



a

b

c

d

All figures must have two inner shapes that are identical to the outer shape apart from size and shading. (b)

6.



a

b

c

d

()

7.



a

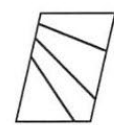
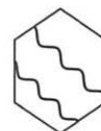
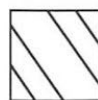
b

c

d

()

8.



a

b

c

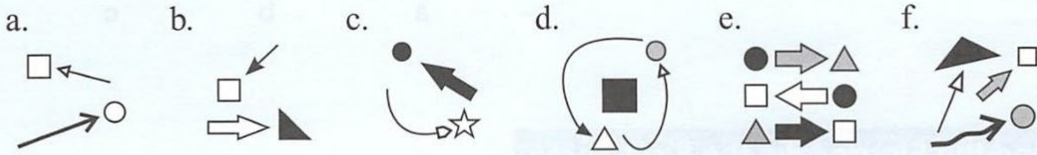
d

()

The direction that an arrow points in is just as important as what it is pointing at.

Warm Up

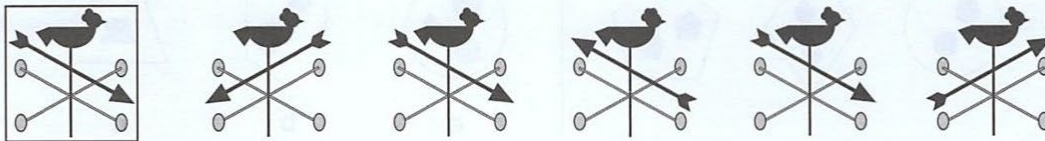
1. What **shape** is the **white arrow** pointing at?



square _____ _____ _____ _____ _____

2. How many of the **arrows** on the right point in the **same direction** as the arrow inside the square?

Arrows can also point in a clockwise or anticlockwise direction (see p.86).

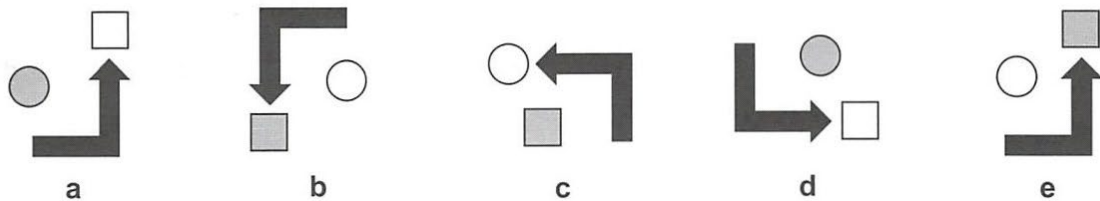


Number of **arrows** that point in the **same direction**: _____

Odd One Out

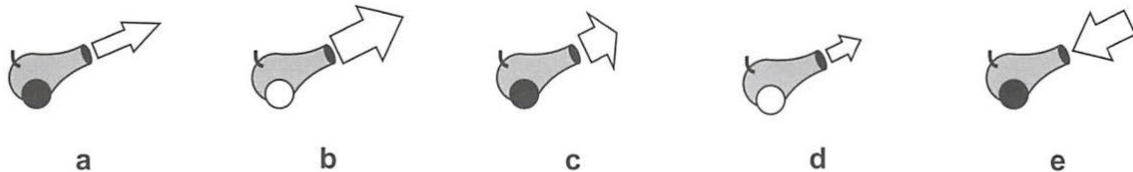
Find the figure in each row that is most unlike the other figures.

Example:



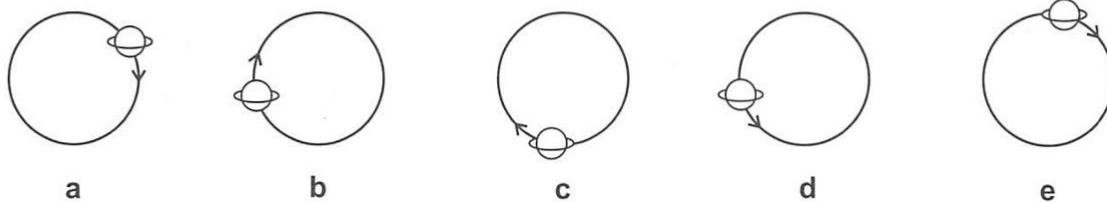
In all other figures, the arrow points towards a square. In C it points towards a circle. (C)

3.

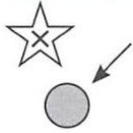


()

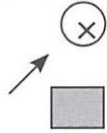
4.



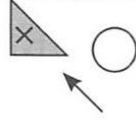
5.



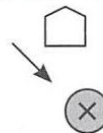
a



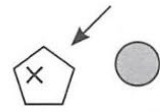
b



c



d



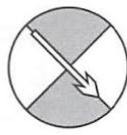
e

()

Find the Figure Like the First Two

Work out which option is most like the two figures on the left.

Example:



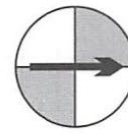
a



b



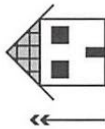
c



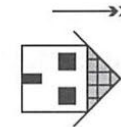
d

In all figures, the arrow must point towards the top left. (b)

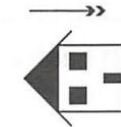
6.



a



b



c



d

()

7.



a



b



c



d

()

8.



a



b



c



d

()

Quick Lesson Recap

- 1) $0.025 \div 10 =$
- 2) $1.2 \times 1000 =$
- 3) $36.78 \times 10 =$
- 4) $23 \div 100 =$
- 5) $587 \times 1000 =$
- 6) What is an abstract noun?
- 7) Can you name the three things to look out for in shapes when trying to solve non-verbal reasoning questions?
 - a)
 - b)
 - c)

Homework - Vocabulary to Learn



Vocabulary 1

Learn the following words and then answer the questions.



Notes

- Demonstrate** (v.): show, reveal, visually explain, display.
Scientists use experiments to demonstrate the proof of their discoveries.
- Opportunity** (n.): chance, occasion, opening.
At the first opportunity our team broke out of defence and scored a quick goal.
- Imagine** (v.): to form a mental image of something, see, picture, dream up.
Close your eyes and imagine you are in a forest.
- Abusive** (adj.): rude, offensive, harsh, violent.
The crowd shouted abusive comments at the unpopular politician, after his speech.
- Illusion** (n.): false belief, delusion, magic, deception.
It would be an illusion if you thought you could pass an exam without working.
- Course** (n.): a class, study / direction, passage of travel/ time period / part of a meal.
Throughout the course of history, there have been far too many useless wars.
- Foggy** (adj.): misty weather / unclear, confused, muddled.
When the weather becomes foggy, it is very hard to see clearly.
- Desert** (v.): abandon, leave, forsake.
Our parents ordered us to stick together and not to desert each other at the cinema.
- Invert** (v.): do the opposite, capsize, overturn, reverse.
Quite simply, to multiply in maths you invert the process of dividing.
- Machinery** (n.): equipment, gear, apparatus.
The machinery that runs an engine is quite complex.

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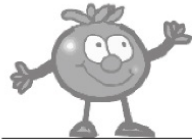
.....

.....

Vocab 1



Cut and keep



Synonym Exercise A

Write the word from the vocab list which is most **similar** in meaning next to each word listed below.

demonstrate

opportunity

imagine

abusive

illusion

course

foggy

desert

invert

machinery

1. Fantasy
2. Overturn
3. Chance
4. Abandon.....
5. Equipment.....
6. Progress
7. Reveal
8. Visualise
9. Offensive
10. Confused

Exercise B



Write the most suitable word from the vocab list in the spaces below. You might need to change the form of the word; for instance, walk might become walked.

1. So amazing was the, that I thought the magician had actually sawn the woman in half.
2. If I had the, I would love to see my favourite pop group in concert.
3. I had tothe tin to tip out the muffins I had baked for tea.
4. The cricket coach tried to how to bowl a spinner.
5. My father bought newto help develop his building company.
6. In the romantic film, the hero had begged the heroine not to him.
7. I took an essay writing every weekend so that I could impress my teacher in the exam.
8. We saw an incident, where the police were called to deal with a man who was using language.
9. When the patient woke up after her operation, her mind was from the anaesthetic.
10. I often.....what it would be like to win the lottery or be a celebrity!

Homework – Memorise the following two pages:

(You will have a few weeks to memorise all of this)

Fraction	Decimal	Percentage
1	1	100%
$\frac{1}{2}$	0.5	50%
$\frac{1}{3}$	0.333	33%
$\frac{1}{4}$	0.25	25%
$\frac{1}{5}$	0.2	20%
$\frac{1}{6}$	0.166	16.6%
$\frac{1}{7}$	0.142	14.2%
$\frac{1}{8}$	0.125	12.5%
$\frac{1}{9}$	0.111	11.1%
$\frac{1}{10}$	0.1	10%
$\frac{1}{20}$	0.05	5%

Square Numbers

A square number is the product of a number multiplied by itself.

For example $1^2 = 1 \times 1 = 1$, so 1 is the first square number and $2^2 = 2 \times 2 = 4$, so 4 is the next square number. You should memorise the first **15** square numbers:

1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196 and 225

Cube Numbers

A Cube number is the product of a number multiplied by itself 3 times.

For example $1^3 = 1 \times 1 \times 1 = 1$, so 1 is the first cube number and $2^3 = 2 \times 2 \times 2 = 8$, so 8 is the next cube number. You should memorise the first **10** cube numbers:

1, 8, 27, 64, 125, 216, 343, 512, 729 and 1000

Prime Numbers

A prime number is a number with 2 factors, 1 and itself, so the first prime number is 2 as its factors is 1. You should learn to recognize the prime numbers up to 100:

2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89 and 97

Conversion Rates

Time

1 Minute = 60 seconds

1 Hour = 60 Minutes

1 Day = 24 Hours

1 Week = 7 Days

1 Fortnight = 2 Weeks

1 Year = 52 Weeks

1 Year = 12 months

1 Year = 365 Days

1 Decade = 10 Years

1 Century = 100 Years

1 Millennium = 1000 Years



Length

1 Centimetre = 10 Millimetres

1 Metre = 100 Centimetres

1 Kilometre = 1000 Metres

5 Miles ≈ (approximately equal to) 8 Kilometres

1 Foot = 12 Inches

1 Yard = 3 Feet



Capacity

1 Kilolitre = 1000 Litre

1 Litre = 1000 millilitres

1 Litre = 100 centilitres

1 Centilitre = 10 millilitres



Weight

1 Tonne = 1000 Kilograms

1 Kilogram = 1000 Grams

1 Gram = 100 Centigrams

1 Gram = 1000 Milligrams

1 Stone = 14 Pounds

1 Pound = 16 Ounces



Learn a few of these each day!

Perhaps you can tick them off as
you learn them?

END OF LESSON



1 x	2 x	3 x	4 x	5 x	6 x
1 x 1 = 1	2 x 1 = 2	3 x 1 = 3	4 x 1 = 4	5 x 1 = 5	6 x 1 = 6
1 x 2 = 2	2 x 2 = 4	3 x 2 = 6	4 x 2 = 8	5 x 2 = 10	6 x 2 = 12
1 x 3 = 3	2 x 3 = 6	3 x 3 = 9	4 x 3 = 12	5 x 3 = 15	6 x 3 = 18
1 x 4 = 4	2 x 4 = 8	3 x 4 = 12	4 x 4 = 16	5 x 4 = 20	6 x 4 = 24
1 x 5 = 5	2 x 5 = 10	3 x 5 = 15	4 x 5 = 20	5 x 5 = 25	6 x 5 = 30
1 x 6 = 6	2 x 6 = 12	3 x 6 = 18	4 x 6 = 24	5 x 6 = 30	6 x 6 = 36
1 x 7 = 7	2 x 7 = 14	3 x 7 = 21	4 x 7 = 28	5 x 7 = 35	6 x 7 = 42
1 x 8 = 8	2 x 8 = 16	3 x 8 = 24	4 x 8 = 32	5 x 8 = 40	6 x 8 = 48
1 x 9 = 9	2 x 9 = 18	3 x 9 = 27	4 x 9 = 36	5 x 9 = 45	6 x 9 = 54
1 x 10 = 10	2 x 10 = 20	3 x 10 = 30	4 x 10 = 40	5 x 10 = 50	6 x 10 = 60
1 x 11 = 11	2 x 11 = 22	3 x 11 = 33	4 x 11 = 44	5 x 11 = 55	6 x 11 = 66
1 x 12 = 12	2 x 12 = 24	3 x 12 = 36	4 x 12 = 48	5 x 12 = 60	6 x 12 = 72
7 x	8 x	9 x	10 x	11 x	12 x
7 x 1 = 7	8 x 1 = 8	9 x 1 = 9	10 x 1 = 10	11 x 1 = 11	12 x 1 = 12
7 x 2 = 14	8 x 2 = 16	9 x 2 = 18	10 x 2 = 20	11 x 2 = 22	12 x 2 = 24
7 x 3 = 21	8 x 3 = 24	9 x 3 = 27	10 x 3 = 30	11 x 3 = 33	12 x 3 = 36
7 x 4 = 28	8 x 4 = 32	9 x 4 = 36	10 x 4 = 40	11 x 4 = 44	12 x 4 = 48
7 x 5 = 35	8 x 5 = 40	9 x 5 = 45	10 x 5 = 50	11 x 5 = 55	12 x 5 = 60
7 x 6 = 42	8 x 6 = 48	9 x 6 = 54	10 x 6 = 60	11 x 6 = 66	12 x 6 = 72
7 x 7 = 49	8 x 7 = 56	9 x 7 = 63	10 x 7 = 70	11 x 7 = 77	12 x 7 = 84
7 x 8 = 56	8 x 8 = 64	9 x 8 = 72	10 x 8 = 80	11 x 8 = 88	12 x 8 = 96
7 x 9 = 63	8 x 9 = 72	9 x 9 = 81	10 x 9 = 90	11 x 9 = 99	12 x 9 = 108
7 x 10 = 70	8 x 10 = 80	9 x 10 = 90	10 x 10 = 100	11 x 10 = 110	12 x 10 = 120
7 x 11 = 77	8 x 11 = 88	9 x 11 = 99	10 x 11 = 110	11 x 11 = 121	12 x 11 = 132
7 x 12 = 84	8 x 12 = 96	9 x 12 = 108	10 x 12 = 120	11 x 12 = 132	12 x 12 = 144

