THIRD SPACE
LEARNING

Multiplication and Division Diagnostic Quiz

Diagnose learning gaps for your Year 6s with 25 multiple choice questions and answers

Year 6

Questions

Name: ....   Class: ....

Date: ....   Score: ....

Please tick your answer to each question.

You can use the space on the right for your working out if you need it.

1   Which number is the lowest common multiple of 4 and 12?

    a ☐   24

    b ☐   48

    c ☐   4

    d ☐   12

2   What is the highest common factor of 6 and 12?

    a ☐   2

    b ☐   6

    c ☐   3

    d ☐   12

3 Which number is prime?

a ☐ 2

b ☐ 1

c ☐ 4

d ☐ 9

---

4 2, 2, 3, 3

This set of numbers are prime factors for _____

a ☐ 10

b ☐ 2

c ☐ I don't know what prime factors are

d ☐ 36

---

5 3,475 x 6 =

a ☐ 18,420

b ☐ 18,244,230

c ☐ 24,243

d ☐ 20,850

6 Mentally divide 480 by 8

a ☐ 6

b ☐ 60

c ☐ 37

d ☐ 70

---

7 Joe earns £2,078 a month. How much does he earn in a year?

a ☐ £24,801

b ☐ £6,234

c ☐ £24,936

d ☐ £27,136

---

8 24 x .... = 624

a ☐ 23

b ☐ 6

c ☐ 60

d ☐ 26

9 Mentally calculate 80 x 40

a ☐ 3,200

b ☐ 320

c ☐ 2,400

d ☐ 32,000

---

10 What is the mistake?

			8	2	1	4
		×			3	6
		4	9	2	8	4
+	2	4	6	4	2	0
	2	9	5	6	0	4

a ☐ There is no mistake - it is the correct answer

b ☐ The place holder has been forgotten

c ☐ Forgot to regroup into the hundreds column when adding the tens

d ☐ A mistake has been made when multiplying by 6

11 Sydney collected 6,438 badges in half a year. If she collected the same number of badges each month, how many badges did she collect each month?

a ☐ 1,073 badges

b ☐ 38,628 badges

c ☐ 1,931 badges

d ☐ 3,219 badges

12 Which number is not a cubed number?

a ☐ 25

b ☐ 64

c ☐ 8

d ☐ 27

13 $9,409 \div 4 =$

a   ☐   2,352.25

b   ☐   2,352.1

c   ☐ $2,352 \frac{1}{4}$

d   ☐   2,352 r1

---

14 Which calculation does not express 4 x 360?

a   ☐   4 x 6 x 6 x 10

b   ☐   4 x 8 x 9 x 10

c   ☐ 4^2 x 9 x 10

d   ☐ 2^2 x 6^2 x 10

---

15 Shay picks 560 strawberries. This is 7 times the amount that Tiya picks. How many strawberries do they pick altogether?

a   ☐   640 strawberries

b   ☐   700 strawberries

c   ☐   80 strawberries

d   ☐   480 strawberries

16   Mentally calculate 120 x 0.3

a   ☐   360

b   ☐   0.36

c   ☐   36

d   ☐   3.6

17   Solve 7 + 3 x 4

a   ☐   40

b   ☐   19

c   ☐   14

d   ☐   84

18   Which number is a composite number?

a   ☐   57

b   ☐   19

c   ☐   41

d   ☐   1

19 Solve $30 - 9 \div 3$

a ☐ 1

b ☐ 24

c ☐ 7

d ☐ 27

---

20 Solve $5{,}658 \div 23$

a ☐ 2,463 r9

b ☐ 202 r12

c ☐ 246

d ☐ I don't know how to work out this question

21 Fill in the missing digits to complete the calculation.

		4	8	9
×				6
4	4		3	

a ☐

	5	4	8	9
×				6
4	4	2	3	5

b ☐

	7	4	8	9
×				6
4	4	9	3	4

c ☐

	7	4	8	9
×				6
4	4	4	3	4

d ☐

	3	4	8	9
×				6
4	4	8	3	5

22   Which calculation does not equal 9?

a   ☐ $1 + 2 \times 3$

b   ☐ $21 \div 7 \times 3$

c   ☐ $23 - 2 \times 7$

d   ☐ $34 - 5^2$

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23   Dylan has some marbles in his bag. He says that when he groups all his marbles into groups of 3, he uses them all. The same happens when he groups them in 6s or in 9s. Which amount cannot be the number of marbles in Dylan's bag?

a   ☐   36 marbles

b   ☐   27 marbles

c   ☐   18 marbles

d   ☐   54 marbles

24 Spot the mistake

	1	6	4	1	r	4
5)	8	7	0	9		

a ☐ It is wrong because you need to start with the ones column

b ☐ A mistake has been made with the exchanging of numbers

c ☐ A mistake has been made in the tens column

d ☐ A mistake has been made in the hundreds column

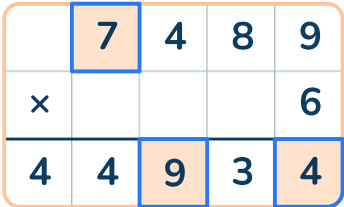**25** A company orders 5,000 footballs from a factory. If the factory can make 1,436 footballs every hour, how many more footballs will still be needed after 3 hours?

a ☐ 692 footballs

b ☐ 4,308 footballs

c ☐ 1,308 footballs

d ☐ 1,702 footballs

Answers

Question Number	Question	Answer
1	Which number is the lowest common multiple of 4 and 12?	d) 12
2	What is the highest common factor of 6 and 12?	b) 6
3	Which number is prime?	a) 2
4	2, 2, 3, 3 This set of numbers are prime factors for _____	d) 36
5	3,475 x 6 =	d) 20,850
6	Mentally divide 480 by 8	b) 60
7	Joe earns £2,078 a month. How much does he earn in a year?	c) £24,936
8	24 x ………. = 624	d) 26
9	Mentally calculate 80 x 40	a) 3,200
10	What is the mistake?	c) Forgot to regroup into the hundreds column when adding the tens
11	Sydney collected 6,438 badges in half a year. If she collected the same number of badges each month, how many badges did she collect each month?	a) 1,073 badges
12	Which number is not a cubed number?	a) 25

Question Number	Question	Answer
13	9,409 ÷ 4 =	b) 2,352.1
14	Which calculation does not express 4 x 360?	b) 4 x 8 x 9 x 10
15	How many strawberries do they pick altogether?	a) 640 strawberries
16	Mentally calculate 120 x 0.3	c) 36
17	Solve 7 + 3 x 4	b) 19
18	Which number is a composite number?	a) 57
19	Solve 30 − 9 ÷ 3	d) 27
20	Solve 5,658 ÷ 23	c) 246
21	Fill in the missing digits to complete the calculation.	b)
22	Which calculation does not equal 9?	a) 1 + 2 x 3
23	Which amount cannot be the number of marbles in Dylan's bag?	b) 27 marbles
24	Spot the mistake	d) A mistake has been made in the hundreds column
25	A company orders 5,000 footballs from a factory. If the factory can make 1,436 footballs every hour, how many more footballs will still be needed after 3 hours?	a) 692 footballs

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