St. Giles CE Primary School

Achieving Through Adventure

Learning Project week 3 'Tourism and Advertising'

Year 5/6

Weekly Maths Tasks – aim to do one per day

Try to do 10 minutes of arithmetic/ mental maths each day:

- https://www.topmarks.co.uk/maths-games/daily10

(Choose level 5 ordering)

- Get your child to play on Times Table Rockstars. TT Rockstars weekly sessions now set, children need to play a minimum of 5 Garage and 3 Studio sessions per week. There is also a weekly Battle of the Bands – Class 4 against Mrs Rogers for the children to have a go at! The more they play, the more likely they are to win!
- Maths (see below).

  Multiplication and Division

  There are three levels of questions. Diving, Deeper and Deepest. For confidence you may want to start with Diving, but for those who want to, your child could start at Deeper. Have a go and see how far they get.

  1. Factors
  2. Common Factors
  3. Multiples
  4. Prime Numbers
  5. Multiply 4-digit numbers by 1-digit numbers

Weekly Reading Tasks – aim to do one per day

Try to read every day. There are some ideas here:

- Audible have made all their children's books free while schools are closed. Choose one and listen:

https://stories.audible.com/discovery

- Read a book of your choice to an adult. Talk about the story and the characters. Predict what you think might happen next. Explain why you like/ do not like the book.
- Complete one of your reading homework tasks from the front of your homework book.
- Look at the names in BAG OF RIDES (see resources). Speculate what type of ride it is by making assumptions based on its name. Think about the ride's movements, forces in action or mechanisms. Make notes to record ideas and develop a visual mind map about the ride on their card.

Weekly Spelling, Punctuation & Grammar Tasks – aim to do one per day

- Work through these tasks to learn how to add suffixes -ent, -ant, -ence, -ance.
- Relative clauses **add information to sentences by using a relative pronoun** such as who, that or which.

Relative pronoun	Noun that the pronoun refers to
who	Refers to a person
which	Refers to an animal, place or thing
that	Can refer to a person, place or thing

The relative clause is used to add information about the noun, so it must be 'related' to the noun.

She lives in Worcester, which is a cathedral city.
That's the girl who lives near school.
I don't like the clown that has a bright red nose.
I am cross with the cat, which has pooed in the garden.
Rachel liked the new chair, which was very comfortable.

Here are some examples of relative clauses (in purple): If you are unsure about relative clauses, this video may help.

Weekly Writing tasks – aim to do one per day

- Choose one of the rides from Bag of Rides and think out words and phrases you would use to describe it of you were writing an advert/persuasive text about this specific ride. Brainstorm words that could describe the experience of being on their imaginary ride. Use a dictionary and thesaurus to look for exciting alternative words, thinking about how they can make the ride sound more exciting and powerful. Instead of exciting, try breathtaking or arresting. Instead of scared, say terror-stricken or fearful.
- Think about how you ride might be advertised on television or online. Search online for example adverts for existing rides and theme parks. Observe and explain how the adverts use language, sound, music and visuals to entice the viewer to visit their parks and ride their rides! Jot down ideas for a radio advertisement that will tempt visitors into riding your ride. Example script is included with this Learning Pack. **Useful links:**
- Harry Potter World Orlando Florida advert – YouTube
- Legoland 2011 advert – YouTube
- Draft a radio advert that can get your message

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Achieving Through Adventure

Write 10 sentences using relative clauses about this picture:

- Go on Spelling Shed to practise this week's spellings – aim to play at least 3 games this week.

across in 30 seconds. Practise reading your words aloud and with expression to see how effective they sound. Consider how you might use sound effects and voice to create drama and excitement.

Note: Provide equipment for children to record, listen to and make changes to their advert to make it more effective and see how their voice sounds.

Useful links:

- Pirates of Emerson Haunted Theme Park 2011 Radio Commercial – YouTube
- Thorpe Park radio ad – YouTube
- Use sound recording and editing software, such as Audacity (Windows, Mac) or Garage Band (Mac, iPad), to record their advert. Use intonation and expression to capture the attention of the listener. Add effects, music and jingles, trimming and fading each sound to fit the narration and create a catchy memorable advert. Save the final, edited recording in a suitable format, such as MP3.

Learning Project to be done throughout the week

- **Computing:** Analyse and compare the websites of the UK's most popular theme parks. Take the role of a web analyst and produce a report on how user-friendly and reliable the sites are, including how easy they are to navigate and whether they provide enough information about the park's rides, how to get there, prices, facilities, and rides suitable for children under 12. Provide a list of recommendations that will help improve the websites. **UK-based theme park websites:** Alton Towers (Stoke-on-Trent), Blackpool Pleasure Beach (Blackpool), Drayton Manor (Staffordshire), Flambards Theme Park (Cornwall), Flamingo Land (NorthYorkshire), Legoland (Windsor), Lightwater Valley (North Yorkshire), Paultons Park (Hampshire), Thorpe Park (Surrey)
- **Geography:** Locate the most popular theme and adventure parks on a map of the UK and find out where they are in relation to urban and rural features and transport links. Work out which theme park is nearest and plan a trip outlining the route they would need to take from home. Make sure the journey includes different modes of transport, including car, bus and train. Use timetables to work out how long the different legs of the journey will take.
- **Computing:** Look at a range of logos, advertising posters and other promotional material for theme parks, including recognised and popular parks, such as Alton Towers or Thorpe Park, including some theme parks overseas such as Disneyland Paris and Orlando. Analyse what types of font, colours and images the posters and material feature and share opinions about them in an online discussion area, such as the school's learning platform. Use publishing software to design a poster for a theme park that deliberately targets a young audience, again sharing their ideas and designs in the discussion area. Make sure they build on the park's existing design style.
- **RE:** Water rides are an essential part of many theme parks. Water is also important to lots of different faiths. Find out about these sources of water and why they are important to different faiths: the river Ganges, the River Jordan, the well of Zamzam. CHALLENGE: try to find where they are in the world on a map.
- **PE:** Every day, Joe Wicks has a 30- minute workout at 9 am. Join in via YouTube. If you prefer something a little less strenuous, then why not check out Cosmic Yoga? https://www.youtube.com/user/CosmicKidsYoga

Family learning

- Design and build a shelter out of just newspaper and sticky tape. Make sure it is big enough to fit in everyone who lives with you. Think about what shapes you will need to construct to make it strong. CHALLENGE: can you make it waterproof? (You will need to add some other materials to help)
- PSHCE: Your child may have concerns about the current situation. Childline has lots of advice about how to discuss it with your child. https://www.childline.org.uk/info-advice/your-feelings/anxiety-stress-panic/worries-about-the-world/coronavirus/

BAG OF RIDES

Velocious Viper	Altitude
Five Forces	Cyclone

Gravity Grinder	Aqueous
Revolution	Immersion

Lumber Ladder	Cam
Plunge	Metronome

Thump Whack	Underpass
Bayern Kurve	Jump and Smile

Caterpillar	Orbiter
Flow Rider	Shoot the Chute

Fishpipe	Wind Seeker
Turbo Drop	Topple Tower

Tidal Wave	Sonic Spinball
Runaway Mine Train	Air

Theme park radio advertisement script

Here at Lunar Land, our aim is to take you to the stars! This is a theme park like no other. Blast off into outer space and prepare for an adventure that can only be described as 'out-of-this-world'...

From the moment you arrive at Lunar Land, your unique experience begins as you board Rocket Rail – the world's only vertical monorail – and climb to reach the dizzying heights of Solar Station. From there it's up to you: will you ride the death-defying Nebulas roller coaster to Mars or drift lazily along the Cosmic Flow to reach Venus? The choices are endless!

Whether you are seeking thrills, making family memories or delving deeper into the mysteries of the universe, we've got you covered. Lunar Land has just won the Big Day Out UK Award for the third consecutive year, eclipsing all other nominees.

Your enjoyment means the world to us. Book online now and get the super-saver early bird special, for the bargain price of £40 per family!

So come along and play amongst the stars at Lunar Land.

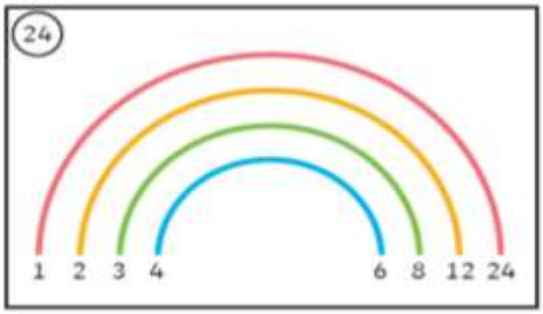
Factors

1) Sort these numbers into the correct columns. Remember: they might be factors of more than one number.

2, 5, 8, 12, 4, 10, 9, 3

Factors of 12	Factors of 40	Factors of 36	Factors of 24

2) Look at the table from question 1. Which factors are still missing for each number?
Draw factor rainbows, like the example, to help you identify missing factors and then add them to the table below.



Factors of 12	Factors of 40	Factors of 36	Factors of 24

3) Tatsiana wants to use a systematic way to identify factors to make sure she doesn't miss any. Can you show a systematic way of identifying all the factors of 48? You could use a factor rainbow or a different method.

1) Alfie is identifying the factors of 36. He says 20 is factor of 36.
Can you explain what mistake he has made?

2) Are these statements true or false? Explain your thinking.

a) Factors come in pairs so all numbers have an even number of factors.

b) 48 has more factors than any other number below 100.

c) Larger numbers have more factors.

1) Rebecca says, "This year, my sister's age is a factor of 36. Next year, her age will be a factor of 30." How old could she be?

2) Rafael says,

"I am thinking of 3 consecutive numbers less than 100. The first number has 5 as one of its factors, the second number has 1 as a factor and the third number has 2 as one of its factors."

a) What could the three consecutive numbers be? Can you find all possible sets of numbers?

Can you explain how you solved the problem?

Answers

1)

Factors of 12	Factors of 40	Factors of 36	Factors of 24
2	2	2	2
4	5	12	8
3	8	4	12
12	4	9	4
	10	3	3

2)

Factors of 12	Factors of 40	Factors of 36	Factors of 24
1	1	1	1
6	20	36	24
	40	18	6
		6	

1) Alfie has made a mistake because 20 multiplied by any number will not give a product of 36. 20 is over half of 36 and therefore could not be a factor of this number. 18 is the greatest factor of 36 apart from 36 and 1.

2) a) This is false. Square numbers have an odd number of factors because one of their factors is always multiplied by itself and we only count each number as a factor once. 9 is a square number and its factors are 1, 9 and 3.

b) This is false. 48 has 10 factors, but 60, 72, 84, 90 and 96 all have 12 factors.

c) This is false. 96 has 12 factors, but 113 only has 2 factors – 1 and itself, 113.

1) Factors of 36 – 1, 2, 3, 4, 6, 9, 12, 18, 36
Factors of 30 – 1, 2, 3, 5, 6, 10, 15, 30
Rebecca's sister could be 2, 4 or 9 years old.

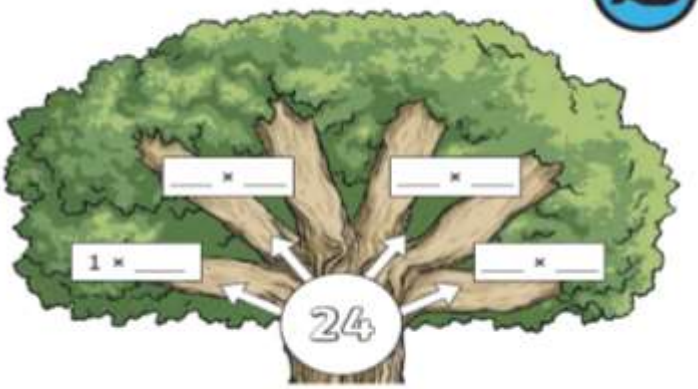
2) a) Possible numbers are:

10, 11 and 12	40, 41 and 42	70, 71 and 72
20, 21 and 22	50, 51 and 52	80, 81 and 82
30, 31 and 32	60, 61 and 62	90, 91 and 92

b) Look for explanations where children identify that only multiples of 5 are going to have 5 as a factor. All numbers will have 1 as a factor. However, only even numbers will have 2 as a factor, therefore the multiples of 5 must be those that end with a 0 as the third number (and therefore the first number) must be even.

Common Factors

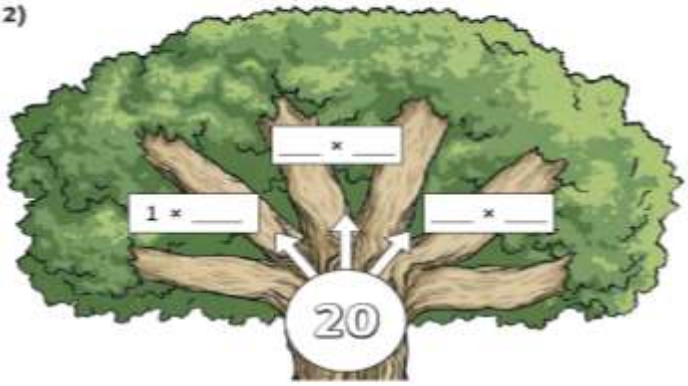
1) Complete the factor trees, identifying all factors of each number.

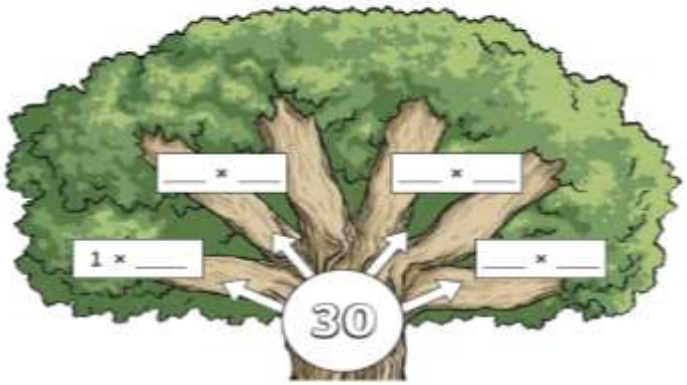


List the common factors of 36 and 24.

_____

2)





List the common factors of 20 and 30.

_____

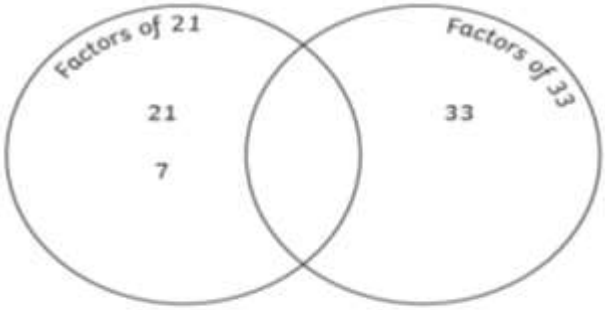
3) Complete the Venn diagram by adding the missing factors.

Which factors are missing?

_____

Which of these are common factors?

_____



1) True or false? Explain your answers.

a) Only even numbers have more than 1 common factor.

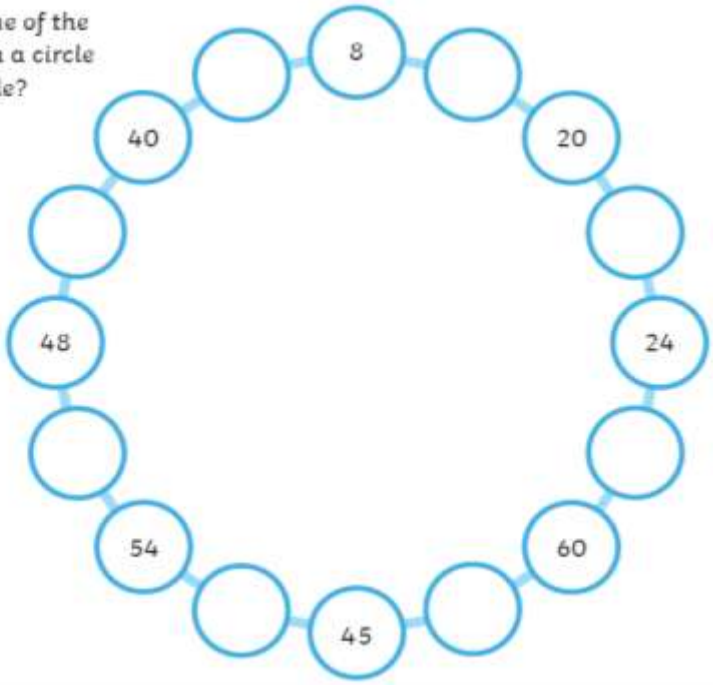
b) 10 is a common factor of 20 and 35.

c) 2 and 5 are common factors of all multiples of 10.

d) If you add a multiple of 5 to a multiple of 10, you get a multiple of 5.

2) The numbers in the arrow are common factors of some of the numbers in the circles. Can you place each number in a circle so that it is a common factor of the number either side?

1, 3, 15, 2, 4, 6, 9, 8



1) I am thinking of 2 numbers less than 100. They have exactly 4 common factors: 1, 2, 5 and 10. What could the numbers be? Give 4 possible pairs of numbers.

2) I am thinking of 2 numbers less than 100. They have exactly 3 common factors. What could the numbers be? Find 4 possible pairs of numbers, together with their 3 common factors.

3) Which two numbers less than 50 have the greatest number of common factors? Explore and record your findings.

Answers

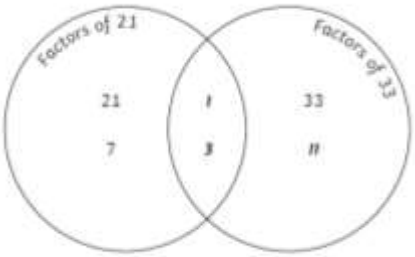
1) *1 × 36, 2 × 18, 3 × 12, 4 × 9, 6 × 6*
1 × 24, 2 × 12, 3 × 8, 4 × 6

The common factors of 36 and 24 are 1, 2, 3, 4, 6 and 12.

2) *1 × 20, 2 × 10, 4 × 5*
1 × 30, 2 × 15, 3 × 10, 5 × 6

The common factors of 20 and 30 are 1, 2, 5 and 10.

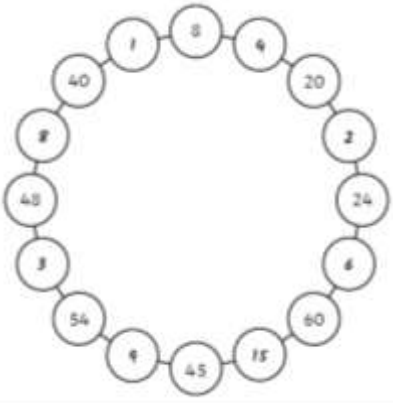
3)



The missing factors are 1, 3 and 11.
The common factors are 1 and 3.

1) a) *False. For example, 15 and 45 have 1, 3, 5 and 15 as common factors.*
b) *False. 10 is not a factor of 35.*
c) *True. All multiples of 10 are even numbers so 2 is a factor of all of these. 5 is factor of every multiple of 10.*
d) *True. 10 is a multiple of 5 so adding another multiple of 5 will also be a multiple of 5.*

2)



A number of different solutions are possible. One of these is shown. In all solutions, 9 must be placed between 54 and 45 and 15 must be placed between 45 and 60.

1) *Answers should be pairs of multiples of 10 between 10 and 90, for example:*
10 and 20
20 and 30
30 and 40
70 and 80

2) *A variety of answers are possible, for example:*
4 and 8 – 1, 2, 4
9 and 18 – 1, 3, 9
25 and 50 – 1, 5, 25

3) *24 and 48 have 8 common factors: 1, 2, 3, 4, 6, 8, 12 and 24.*

Multiples

1) Write the numbers in the correct columns (some numbers might belong in more than one column).

16, 40, 36, 55, 72, 24, 30

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10

2) Look at the numbers in each column. What do you notice? Write a rule for each column about how to identify if a number is a multiple.

a) Multiples of 2

b) Multiples of 3

c) Multiples of 5

d) Multiples of 10

3) Using your rules from question 2, sort the following numbers correctly.

7362, 8654, 6246, 3475, 4530, 3513

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10

Answers

1)

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10
16	36	40	40
40	72	55	30
36	24	30	90
72	30	90	
24	90		
30			
90			

2) a) *The final digit is even.*

b) *The digit total is 3, 6 or 9 (or a multiple of 3).*

c) *The final digit is 0 or 5.*

d) *The final digit is 0.*

3)

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10
7362	7362	3475	4530
8654	6246	4530	2940
6246	4530	2940	
4530	3513		
2940	2940		

1) a) *This is sometimes true. For example, 12 is a multiple of both 3 and 6. However, 15 is a multiple of 3 but not a multiple of 6.*

b) *This is always true. Multiples of 5 end with a 0 or 5 and multiples of 10 always end with a 0. Therefore, adding a multiple of 5 to any multiple of 10 will result in the new number ending in 0 or 5, which is a multiple of 5.*

c) *This is never true. Multiples of 4 are always even numbers.*

2) *Jamie's grandad is 48 years old. He could also possibly be 104!*

1) *Multiple answers possible, including: 64, 65, 66 | 124, 125, 126 | 184, 185, 186*

2) *Possible numbers are: 24, 54, 84, 114, 144, 174, 324, 354*

Prime Numbers

On the 100 Square cross out all the multiples of 2, 3, 4, 5, 6, 7, 8, 9, 10. You will need to go past 12x the number. The 2s have been done for you. Some numbers will be crossed out more than once. Can you predict what they will be?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

The numbers that are left only have 2 factors: 1 and themselves.

e.g. 13 has factors of 1 and 13, but no others

These are **PRIME NUMBERS**

Now go to this webpage: https://www.mathsisfun.com/definitions/composite-number.html

1) Finish the definitions:

A prime number _____

A composite number _____

2) Sort the numbers correctly to show whether they are prime or composite numbers.

3, 6, 7, 9, 13, 15, 18, 27, 33, 41, 61, 81

Prime	Composite

3) Find all the prime numbers between 70 and 100 and list them below.

_____

_____

1) Michael says,

'All prime numbers are odd.'

Do you agree? Explain your thinking.

2) What number am I?

Use the clues to find all the possible numbers. You might want to use a hundred square to help you.

I am a prime number less than 100.

I am 1 more than a multiple of 10.

3) What number am I?

I am a prime number less than 100.

I am 2 less than a multiple of 5.

1) Amira sets a challenge for her friend Marc.

Can you find all the possible numbers she could be thinking of?

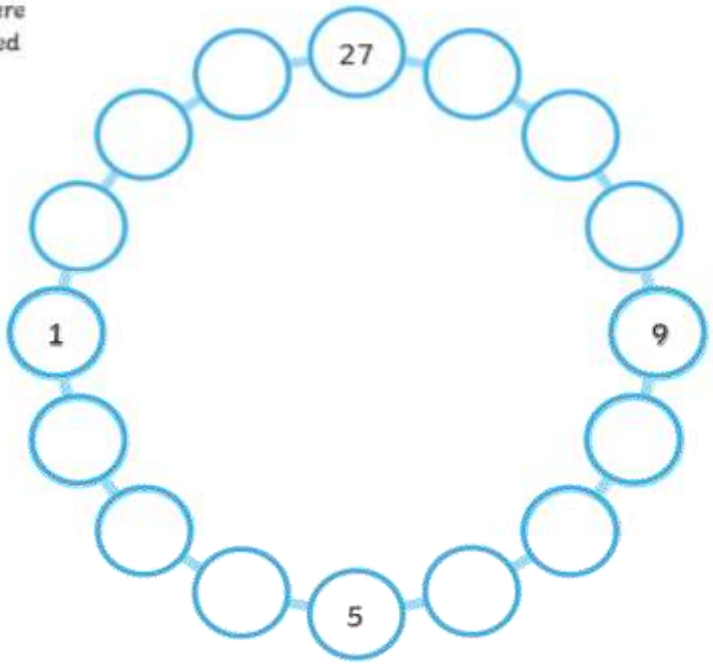
I am thinking of a number. It is higher than 20. It is less than 60. It is a prime number. The sum of its digits is an odd number.

Is Marc correct? Explain your reasoning.

2) Can you arrange the numbers in the circles so that each adjoining pair adds to make a prime number?

2, 3, 4, 6, 7, 8, 10, 11, 12, 14, 15, 16

Top Tip: think about where the odd numbers will need to be placed.



Answers

1) A prime number *has only 2 factors: 1 and itself.*
A composite number *has more than 2 factors.*

2)

Prime	Composite
3	6
7	9
13	15
41	18
61	27
	33
	81

3) *71, 73, 79, 83, 89, 97*

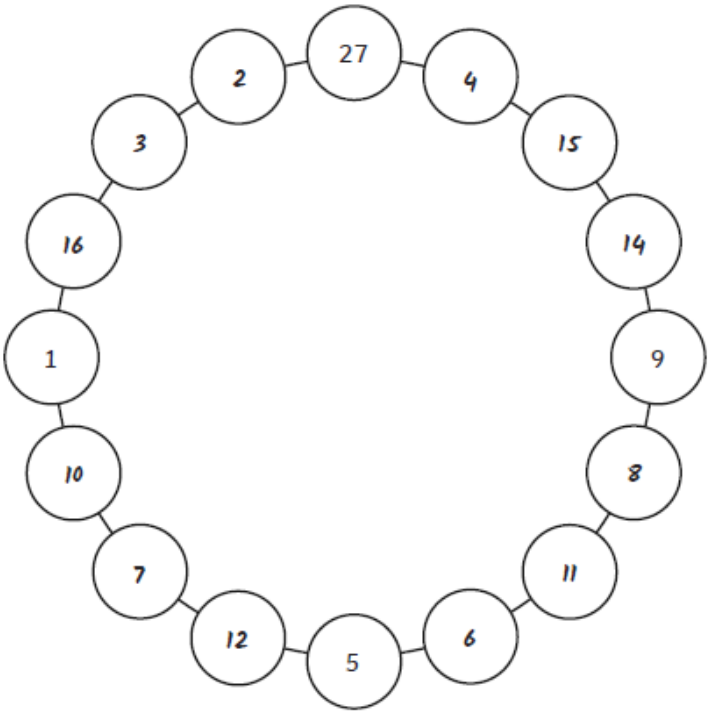
1) *Michael is incorrect, as 2 is a prime number and it is even. 2 is the only even prime number.*

2) *11, 31, 41, 61, 71*

3) *3, 13, 23, 43, 53, 73, 83*

1) Marc is incorrect. There are 5 numbers that fit all the criteria: 23, 29, 41, 43 and 47. They are all greater than 20, less than 60 and they are all prime. Their digit sums are all odd.

2) This is one possible solution:



Multiply a 4-digit number by a 1-digit number

1) The time machine has broken down. We need a 3-digit code to make it work again. The code is the second digit of each product.

Write the multiplication calculation which is represented by the place value counters and find the product to help work out the code.

a)

Thousands	Hundreds	Tens	Ones
●	●	● ● ●	● ●
●	●	● ● ●	● ●
●	●	● ● ●	● ●

b)

Thousands	Hundreds	Tens	Ones
● ●		● ● ● ●	● ●
● ●		● ● ● ●	● ●
● ●		● ● ● ●	● ●
● ●		● ● ● ●	● ●

c)

Thousands	Hundreds	Tens	Ones
● ● ●	● ● ● ● ● ●	●	● ● ●
● ● ●	● ● ● ● ● ●	●	● ● ●
● ● ●	● ● ● ● ● ●	●	● ● ●
● ● ●	● ● ● ● ● ●	●	● ● ●
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● ● ●	● ● ● ● ● ●	●	● ● ●

What is the 3-digit code?

2) Write two different word problems which could be solved by the calculation represented by the place value counters.

Thousands	Hundreds	Tens	Ones
● ●	●		● ● ●
● ●	●		● ● ●
● ●	●		● ● ●
● ●	●		● ● ●

1) Harry has been practising short multiplication. Identify and explain the errors he has made.

2) Now complete each calculation correctly.

a)

2	3	1	4
×			3
6	9	3	12

2	3	1	4
×			3

b)

	3	0	4	3
×				4
1	2	1	6	2
		1		

	3	0	4	3
×				4

c)

	5	2	0	6
×				6
3	1	2	9	6
	1		3	

	5	2	0	6
×				6

d)

	4	3	1	0
×				8
	3	4	4	8
		2		

	4	3	1	0
×				8

1) Can you identify the missing digits in these calculations?

a)

□	2	□	2
×			3
9	□	3	6

b)

	4	□	1	□
×				4
□	6	0	6	0

c)

	□	1	□	□
×				5
3	0	5	1	5

2) Replace the letters with numbers to make this multiplication calculation work.

a) Find 3 possible solutions.

A	B	B	A
×			C
C	D	D	C

b) Explain how you found solutions. For example, what can the letters be and what can they not be?

Answers

1) a) *1132 × 3 = 3396*

b) *2042 × 4 = 8168*

c) *3613 × 6 = 21 678* *The code is 311.*

2) *Possible answers must show the need for calculating 2103 × 4, for example:*
Sally is writing a book. Each day, she writes 2103 words. How many words has she written after the fourth day?
Sylvain earns £2103 a month. How much does he earn after four months?

1) a) *Harry should have regrouped the ten from 4 × 3 and added this to 10 × 3, to make 4 in the tens column.*

b) *Harry has not regrouped the ten from 3 × 4.*

c) *Harry has incorrectly recorded 0 × 6 as 6.*

d) *Harry has not recorded 0 × 8 as 0 by putting a place holder in the ones column.*

2) a) *2314 × 3 = 6942*

b) *3043 × 4 = 12 172*

c) *5206 × 6 = 31 236*

d) *4310 × 8 = 34 480*

1) a)

3	2	**1**	2
×			3
9	**6**	3	6

b)

	4	**0**	1	**5**
×				4
1	6	0	6	0
			2	

c)

	6	1	**0**	**3**
×				5
3	0	5	1	5
			1	

2) a) *There are four possible solutions.*

1221 × 3 = 3663

1441 × 2 = 2882

1331 × 2 = 2662

1221 × 4 = 4884

b) *Look for children explaining that A must have a value of 1 to ensure that the answer C has the same value as the multiplier C. None of the letters can have a value of 0. Multiplying B by C must not result in any regrouping, so these letters must have a value of less than 5.*