

Year 6

Independent Maths & English Work Booklet

Answers

1

A

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Page 1: Pirate-Themed Mental Calculations Code Breaker

Answer	Letter	Answer	Letter
121	a	7044	n
642	b	872	o
125	c	14	p
8	d	42	q
12	e	7704	r
11	f	27	s
16	g	84	t
22	h	100	u
216	i	27	v
48	j	64	w
49	k	120	x
36	l	66	y
603	m	144	z

	Answer	Letter
64 200 \div 100	642	b
10^2	100	u
0.125×1000	125	c
5^3	125	c
$\frac{11}{12}$ of 132	121	a
15184 - 8140	7044	n
$\frac{3}{7}$ of 28	12	e
$\frac{2}{11}$ of 66	12	e
4052 + 3652	7704	r

	Answer	Letter
$1400 \div 10^2$	14	p
6^2	36	l
0.121×10^3	121	a
8140 - 1096	7044	n
7^2	49	k

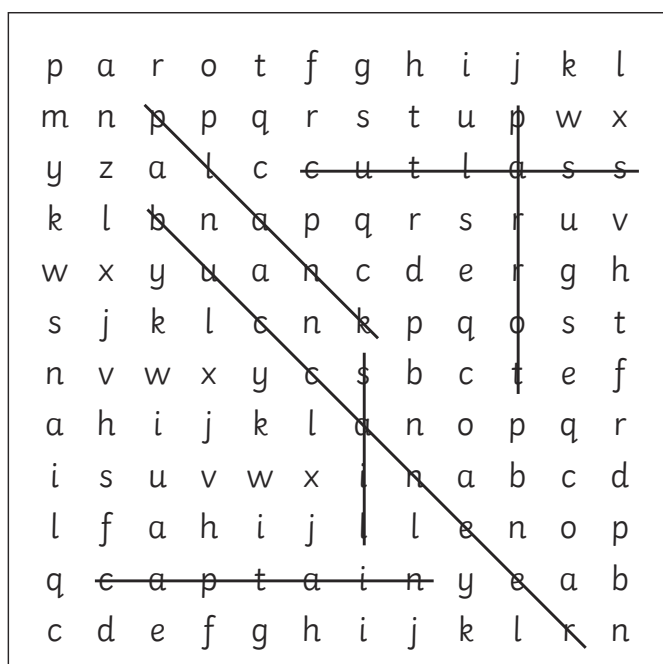
3^3	27	s
8053 - 7932	121	a
6^3	216	i
4×3^2	36	l

$\frac{7}{12}$ of 24	14	p
11^2	121	a
36 357 - 28 653	7704	r
6992 + 712	7704	r
25 652 - 24 780	872	o
$\frac{7}{12}$ of 144	84	t

5184 - 5059	125	c
1.21×10^2	121	a
$\frac{2}{5}$ of 35	14	p
0.084×1000	84	t
11^2	121	a
$21600 \div 100$	216	i
7.044×10^3	7044	n

5^3	125	c
10^2	100	u
0.84×100	84	t
6^2	36	l
$\frac{11}{100}$ of 1100	121	a
3^3	27	s
$\frac{3}{8}$ of 72	27	s

Page 2: Pirate-Themed Mental Calculations Code Breaker (Continued)



buccaneer

plank

sail

parrot

captain

cutlass

Page 3: Maths Activity Mat

Section 1

Smallest: 1 010 011

1 100 111

1 101 011

Largest: 1 110 101

Section 2

380

Section 3

$$0.4 \times 100 = \mathbf{40}$$

$$0.9 \times 100 = \mathbf{90}$$

$$0.7 \times 100 = \mathbf{70}$$

Section 4

$$\frac{8}{12} = \frac{2}{3}$$

$$\frac{15}{25} = \frac{3}{5}$$

Section 5

$$0.2\text{kg} = \mathbf{200\text{g}}$$

$$1490\text{g} = \mathbf{1.49\text{kg}}$$

$$1.2\text{kg} = \mathbf{1200\text{g}}$$

Section 6

88 boxes

Section 7

Example shapes that could appear in each section:

One right angle: **Irregular pentagon and hexagon with at least one right angle**

Four sides or less: **Equilateral triangle, isosceles triangle (no right angle)**

Both: **Right angled triangle, square**

Outside: **Regular hexagon, regular octagon**

Section 8

Cheese and Onion: **4**

Salt and Vinegar: **12**

Smokey Bacon: **8**

Page 4: Pirate Flags

$$\text{Flag 1: Red} = \frac{1}{3} \mathbf{15 \text{ squares}}$$

$$\text{Green} = \frac{1}{6} \mathbf{7.5 \text{ squares}}$$

$$\text{Blue} = \frac{1}{2} \mathbf{22.5 \text{ squares}}$$

Page 4: Pirate Flags (Continued)

Flag 1: Area = **45cm²**

Perimeter = **32cm**

Flag 2: Red = $\frac{1}{4}$ **8.5 squares**

Green = $\frac{1}{8}$ **4.25 squares**

Blue = $\frac{1}{2}$ **17 squares**

White = $\frac{1}{8}$ **4.25 squares**

Area = **34cm²**

Perimeter = **28cm**

Page 5: Pirate-Themed Mental Calculations Mosaic

3997 + 60	4265 + 70	5488 + 60	6526 - 40	5587 - 70	7044 - 90	6071 + 80	4250 + 60	5217 + 70
5018 + 80	5444 + 90	5629 + 80	6143 - 70	6857 - 20	7033 - 80	5567 + 80	5625 + 10	4954 + 90
6146 + 80	6177 - 50	6271 - 60	6585 + 90	6927 - 60	5693 + 90	5782 + 30	5587 + 20	6748 - 40
4569 + 50	5534 - 70	2468 + 80	2956 - 70	4017 - 50	3541 + 60	2787 + 60	5413 + 20	4499 + 40
3963 + 70	2957 - 40	3016 - 50	5504 - 10	3078 + 80	5892 + 90	3520 + 40	2567 - 50	4755 + 60
4585 + 50	6971 + 50	2676 - 50	3455 - 80	3783 + 40	4037 - 90	2560 + 20	7526 + 60	4508 + 20
5206 + 20	8512 - 40	3453 + 70	2527 - 40	1999 + 60	2087 - 60	3953 + 40	7037 + 70	5408 + 90
3914 + 90	4567 + 70	6982 + 20	8501 - 50	7524 + 40	8516 - 30	8274 + 80	3990 + 20	5400 - 90
4657 + 30	8486 + 40	9945 + 20	9514 - 40	8921 + 70	9254 + 60	8878 + 80	9426 - 70	5514 - 20
8498 + 70	9466 + 60	9014 - 30	8889 + 80	9998 - 90	9754 + 80	9620 - 90	9927 - 60	9694 + 90

Extra Challenge:

8513 - 30 = 8473 is incorrect.

The answer should be 8483.

7204 + 89	6991 + 81	4526 + 69	5217 - 99	5517 - 41	8486 - 69	8539 - 91	9877 - 59	7900 - 61
7777 + 49	8526 - 61	3953 + 69	6968 + 39	4083 + 81	7278 + 99	8926 + 61	8412 + 91	9150 - 51
7826 + 69	6989 + 19	5095 + 39	7834 - 29	3993 + 79	8186 - 81	8414 - 69	2456 + 89	7412 + 81
7842 - 49	7517 + 51	8096 + 31	8278 - 39	4606 - 89	8512 - 71	6978 + 89	4012 - 71	7433 - 39
7077 + 69	8086 - 81	7522 + 71	8155 + 19	5122 + 29	7661 + 59	6994 + 49	2983 + 39	7940 - 51
7053 - 61	5486 + 69	5989 + 91	5294 + 19	4670 - 21	4525 + 19	7002 - 69	5475 + 31	7047 - 49
7007 - 81	5786 + 89	2414 + 99	3148 - 29	2991 - 49	4015 - 61	3246 + 29	5687 + 79	5621 + 41
5479 + 81	5733 + 69	3847 + 19	4001 - 59	2722 + 31	3033 + 61	2834 + 59	5555 + 81	7006 - 99
7018 - 21	5516 + 39	3456 + 21	3690 - 59	3544 - 81	4036 - 41	2544 + 61	6017 - 29	6712 - 41
5806 + 69	7044 - 49	1567 + 19	2084 - 49	2322 - 81	1568 + 61	1275 + 39	5496 + 11	7002 - 11

Extra Challenge:

2117 + 59 > 2223 - 89

True, 2176 is greater than 2134

9486 + 99 < 9568 - 71

False, 9585 is not less than 9497

1.5 + 3.2	9.2 - 4.4	12.3 - 2.1	16.4 - 5.1	20.0 - 8.8	3.5 + 2.1	6.4 - 1.8	7.5 - 3.2	14.5 - 10.1
2.4 + 3.1	17.6 - 6.2	11.3 + 0.5	3.6 + 0.2	1.8 + 1.9	9.7 + 0.8	7.4 - 2.8	5.8 - 1.4	3.1 + 2.4
6.0 - 1.1	3.7 + 3.9	5.6 + 2.2	7.6 - 6.2	4.2 - 1.6	5.7 + 5.2	4.7 + 1.2	2.9 + 2.9	7.5 - 2.8
4.1 + 1.5	10.5 - 2.8	4.7 + 3.3	8.4 - 4.6	3.7 - 1.1	6.5 + 5.1	5.4 - 0.9	2.0 + 3.7	6.5 - 1.4
9.6 - 5.2	9.9 - 2.2	1.3 + 0.5	19.8 - 7.9	18.4 - 8.2	12.1 - 1.3	14.3 - 3.2	3.8 + 0.9	8.1 - 3.7
10.8 - 6.3	2.7 + 1.4	1.2 + 3.9	11.1 + 0.8	12.6 - 1.7	14.3 - 2.6	10.1 + 1.8	1.4 + 3.7	2.8 + 3.2
2.2 + 3.3	1.9 + 3.5	4.6 + 7.2	3.9 + 6.8	17.5 - 6.8	6.3 + 3.7	12.5 - 3.4	16.5 - 4.6	2.9 + 1.1
4.2 + 1.4	1.7 + 2.5	14.3 - 2.5	2.3 + 8.4	5.5 + 4.2	11.5 - 2.7	10.0 - 1.4	8.4 + 4.2	8.4 - 2.8
6.1 - 1.2	8.4 - 3.7	9.2 + 2.5	5.4 + 6.5	7.4 + 0.9	6.2 + 2.1	7.2 + 0.9	16.6 - 3.4	9.3 + 4.4
18.3 - 14.1	1.1 + 4.7	8.2 + 1.9	9.2 + 2.1	2.5 + 7.2	6.8 + 2.3	10.7 - 2.5	20.0 - 6.2	14.8 + 0.9

Extra Challenge:

Various answers are possible – for example, 12.1 – 1.3 because the other answers all have 7 in the tenths column or 14.8 + 0.9 because its answer has an odd number of ones.

Page 9-13: The Mystery of the Missing Pirate Treasure

Clue 1

	Right ✓	Wrong ✗
$32.6 - 21.52 = 11.8$		✗ (11.08)
$10.04 + 17.37 = 27.41$	✓	
$2.3 + 1.84 + 3.07 = 6.94$		✗ (7.21)
$95.32 - 26.86 = 68.46$	✓	
$1.257 + 15.682 = 16.939$	✓	
$68.72 - 39.562 = 29.162$		✗ (29.158)
$15.686 + 39.868 = 55.554$	✓	
$107.248 - 57.3 = 49.948$	✓	
$84.732 - 69.92 = 14.64$		✗ (14.812)
Total	5	4

Clue 1: **The buried treasure is more than 150 metres above sea level.**

Clue 2

Use written methods of multiplication and division to solve these calculations. Colour the answers in the table below. Re-arrange the shaded words to find the second clue.

1. $18 \times 36 = \mathbf{648}$	2. $756 \div 9 = \mathbf{84}$	3. $8.2 \times 12 = \mathbf{98.4}$
4. $1024 \div 8 = \mathbf{128}$	5. $19 \times 28 = \mathbf{532}$	6. $65 \times 92 = \mathbf{5980}$

98.4 the	92.4 is more than	88 one thousand	540 six thousand
84 of the	532 population	640 five thousand	130 four thousand
648 island	128 is less than	5980 ten thousand	6980 three thousand

Clue 2: **The population of the island is less than ten thousand.**

Page 9-13: The Mystery of the Missing Pirate Treasure (Continued)

Clue 3

What is the height of the tide at 3:00 p.m. in the afternoon? **(1.8 metres)**

How many hours did it take for the tide to change from its lowest level to its highest level? **(6 hours)**

What is the height of the tide at 7:00 p.m.? **(3.4 metres)**

By how many metres did the tide level change between 2:00 p.m. and 8:00 p.m.? **(2.8 metres)**

By how many metres did the tide level change between 8:00 p.m. and 11:00 p.m.? **(1.1 metres)**

6 hours the	1.7 metres is less than	1.2 metres 60 miles	1.1 metres 70 miles
5 hours 80 miles	3.4 metres island	2.8 metres is more than	1.8 metres away

Clue 3: **The island is more than 70 miles away.**

Clue 4

1.	2.6	1.84	1.8	1.805	2.06
	1.8	1.805	1.84	2.06	2.6
2.	1.1	1.2	2.1	1.19	2.2
	1.1	1.19	1.2	2.1	2.2
3.	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{5}{6}$	$\frac{11}{24}$	$\frac{2}{3}$
	$\frac{11}{24}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{2}{3}$	$\frac{5}{6}$
4.	56 235	56 181	56 824	65 455	56 881
	56 181	56 235	56 824	56 881	65 455
5.	56.268	562.68	5.626	56 268	5626.8
	5.626	56.265	562.68	5626.8	56 268

the south-west 2.06	located in $\frac{5}{6}$	treasure caves 2.2	the north-east 2.1
island's 2.6	the south-east $\frac{2}{3}$	the north 56 881	the east 5626.8
are 65 455	the south 1.84	the north-west 56 268	the west $\frac{5}{8}$

Clue 4: **The island's treasure caves are located in the north-west.**

The buried treasure can be found on: **Ring of Rocks Island**

Page 14: Five Palms Hotel

Accept either example:

1. Are you ready for some family fun in the sun?

...why would you want to go anywhere else?

The author has used the rhetorical question to get people to read further into the article to find the answer/ to persuade people that this is the best place to stay on holiday.

	True	False
Five Palms is an old hotel.		✓
The kids clubs run from 9am to 12pm.		✓
Satellite TV is included in all rooms.	✓	

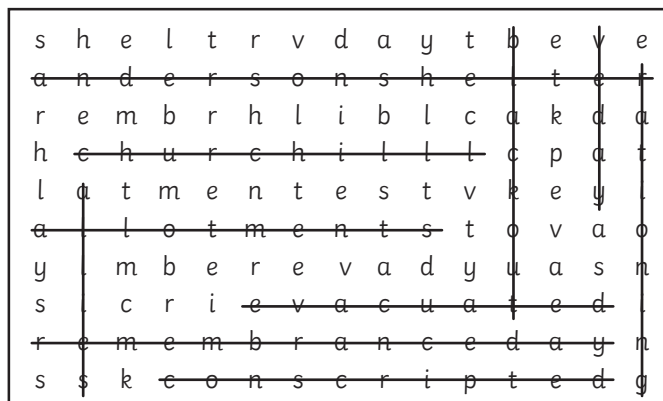
3. Accept reference to families with children with appropriate justification from the text.
4. Accept any appropriate definition, for example:
best, excellent, top-quality, most important, first-rate, superior.

Page 16: Spot Mr Whoops' Mistakes

competition	desperate
marvellous	amateur
equipment	environment
communicate	cemetery
soldiers	disastrous
aggressive	lightning
excellent	

Page 17: Quick Write: Space Pupils' own responses.

Page 18: Second World War Word Search



1. At the start of the Second World War, France and Poland were Great Britain's **allies**.
2. Victory in Europe Day is otherwise known as **VE Day**.
3. **Rationing** was the limiting of food, clothing and petrol.
4. People turned their gardens into **allotments** to grow their own vegetables.
5. Men between 18 and 41 years old were **conscripted** to fight.
6. Children were **evacuated** from cities to the countryside.
7. Windston **Churchill** became Prime Minister in 1940.
8. People wear poppies on **Remembrance Day**.
9. One type of air raid shelter was called an **Anderson shelter**.
10. The time of night when everyone had to cover their windows and doors was known as a **blackout**.

Page 19-25: The Missing Emojis: SPaG Problem-Solving Mystery Game

Clue 1: Formal or Informal Footprints?

Formal	Informal
profession	job
immediately	now
opportunity	chance
sufficient	enough
sacrifice	give up
injustice	
spectacles	

The culprit wore **smart shoes**.

Clue 2: Silly Synonyms

Poorly	Angry
peaky	irate
ailing	annoyed
unwell	furious

Confused	Happy
baffled	ecstatic
muddled	overjoyed
bewildered	gleeful
perplexed	jovial
puzzled	

The emoji with the most synonyms is **confused** so this must be the worker's favourite emoji.

Clue 3: Prefix Packets

re-	dis-	over-
connect	connect	take
act	courage	act
appoint	appoint	sleep
do	agree	do
read		
take		

The prefix with the most words is **re-** so the culprit's favourite snack is **chocolate**.

Clue 4: Eye-Spy the Culprit!

immediate	stomach	lightning	immediate	committee	disasterous	queue
foreign	suggest	leisure	equipped	muscle	individual	desperate
restaurant	bargain	awkward	mischievous	sincere	dictionary	familiar
recommend	persuade	programme	determined	especially	hindrance	develop
curiosity	according	sacrifice	conscience	controversy	forty	explanation
communicate	system	yacht	shoulder	rhythm	equipment	embarrass
variety	recognise	sufficient	rhyme	signature	convenience	bruise
neighbour	frequently	correspond	cemetery	relevant	nuisance	marvellous
vegetable	profession	conscious	twelfth	prejudice	ancient	physical
achieve	equip	vehicular	accompany	immature	symbol	average
pronunciation	exaggerate	guarantee	secretary	identity	necessary	parliament
privilege	temperature	criticize	language	apparent	available	excellent
thorough		harass	community			occupy

The culprit **wears** glasses.

Clue 5: Terrible Texting

Corrections (Accept any relevant punctuation – semi-colon, colon, dash)

I'm sorry - it was me. the emojis were annoying me: it felt like they were taking over the world!

I thought people would appreciate a day without emojis; I know I did!

I have never done anything like this before; it was wrong of me.

There are 4 missing boundaries between independent clauses so the thief's house number is 4.

The culprit was Craig Cry.