# Find the signs (1)

Maths worksheets from urbrainy.com

Put the + or – signs in the circles to make each number sentence correct.

1. 8 ◯ 3 ◯ 2 = 9

2. 8 ◯ 3 ◯ 2 = 7

3. 6 ◯ 2 ◯ 5 = 13

4. 6 ◯ 2 ◯ 5 = 9

5. 7 ◯ 5 ◯ 2 = 4

6. 7 ◯ 5 ◯ 2 = 10

7. 9 ◯ 3 ◯ 4 = 2

8. 9 ◯ 3 ◯ 4 = 16

9. 6 ◯ 5 ◯ 4 = 5

10. 6 ◯ 5 ◯ 4 = 7

11. 7 ◯ 1 ◯ 5 = 3

12. 7 ◯ 1 ◯ 5 = 11

Find the signs (1)

Maths worksheets from urbrainy.com

Put the + or – signs in the circles to make each number sentence correct.

1. 7 ◯ 2 ◯ 3 = 12

2. 7 ◯ 2 ◯ 3 = 2

3. 8 ◯ 1 ◯ 7 = 2

4. 8 ◯ 1 ◯ 7 = 14

5. 9 ◯ 3 ◯ 4 = 10

6. 9 ◯ 3 ◯ 4 = 8

7. 6 ◯ 4 ◯ 2 = 12

8. 6 ◯ 4 ◯ 2 = 4

9. 8 ◯ 4 ◯ 5 = 7

10. 8 ◯ 4 ◯ 5 = 9

11. 9 ◯ 1 ◯ 3 = 13

12. 9 ◯ 1 ◯ 3 = 11

# More standard written addition of 4-digit numbers

Maths worksheets from urbrainy.com

Set out each question using the standard written method. There is a page at the end of this module if help is needed.

1. Add 5 870 and 3 276.
2. What is the total of 7 095 and 6 778 ?
3. How many altogether is 5 482 and 1 098 ?
4. Add 6 935 to 8 125.
5. What is the sum of 6 363 and 7 474 ?
6. 8 642 plus 2 468.
7. Add 5 756 and 4 289.
8. What is the total of 6 835 and 4 908 ?
9. 3 048 plus 6 788.
10. Add 3 177 to 8 423.
11. How many altogether are 7 209 and 2 308 ?
12. What is the sum of 9 357 and 8 468 ?

Set out each question using the standard written method. There is a page at the end of this module if help is needed.

1. Add 6 981 and 1 059.
2. What is the total of 5 873 and 5 667 ?
3. How many altogether is 4 371 and 9 109 ?
4. Add 5 824 to 6 906.
5. What is the sum of 5 252 and 5 259 ?
6. 7 508 plus 1 499.
7. Add 4 645 and 3 982.
8. What is the total of 5 724 and 3 809 ?
9. 2 940 plus 5 887.
10. Add 2 066 to 6 425.
11. How many altogether are 6 108 and 2 904 ?
12. What is the sum of 8 642 and 3 579 ?

## Using pencil and paper methods to answer subtraction problems

**Answer all the questions below using pencil and paper methods. It is very important that you show all your working out.**


**1.** Find the difference between 1 345 and 258.

**2.** Find the difference between 2 360 and 292.

**3.** How much bigger is 1 782 than 594 ?

**4.** How much bigger is 2 745 than 677 ?

**5.** Subtract 154 from 1 220.

**6.** Subtract 375 from 1 461.

**7.** How much smaller is 361 than 1 750 ?

**8.** How much smaller is 218 than 1 409 ?

**9.** If you have £7.62 and your friend has £3.76, how much more money have you got than your friend?

**10.** If you started with £8.17 and then bought a C.D. costing £5.49, how much money would you have left?

**11.** 63.5 km - 6.7 km

**12.** 94.5 km - 7.9 km

**13.** Subtract 34.8 km from 67.3 km

**14.** Subtract £1.66 from £4.50

**15.** £5.51 - £2.98

## Using pencil and paper methods to answer subtraction problems

**Answer all the questions below using pencil and paper methods. It is very important that you show all your working out.**


**1.** Find the difference between 2 456 and 188.

**2.** Find the difference between 3 470 and 191.

**3.** How much bigger is 2 843 than 554 ?

**4.** How much bigger is 3 856 than 977 ?

**5.** Subtract 268 from 1 313.

**6.** Subtract 489 from 1 611.

**7.** How much smaller is 472 than 1 633 ?

**8.** How much smaller is 325 than 1 411 ?


**9.** If you have £9.22 and your friend has £4.35, how much more money have you got than your friend?

**10.** If you started with £9.30 and then bought a game costing £6.25, how much money would you have left?

**11.** 72.1 km - 9.7 km

**12.** 65.6 km - 7.7 km

**13.** Subtract 43.9 km from 72.5 km

**14.** Subtract £2.77 from £8.40

**15.** £7.73 - £3.86

# Find the signs (1)

Maths worksheets from urbrainy.com

## Answers

### Page 1

1. + −  2. − +  3. + +  4. − +  5. − +  6. + −

7. − −  8. + +  9. − +  10. + −  11. + −  12. − +

### Page 2

1. + +  2. − −  3. + −  4. − +  5. − +  6. + −

7. + +  8. − +  9. + −  10. − +  11. + +  12. − +

# Answers

## Page 1

1. 9 146
2. 13 873
3. 6 580
4. 15 060
5. 13 837
6. 11 110
7. 10 045
8. 11 743
9. 9 836
10. 11 600
11. 9 517
12. 17 825

## Page 2

1. 8 040
2. 11 540
3. 13 480
4. 12 730
5. 10 511
6. 9 007
7. 8 627
8. 9 533
9. 8 827
10. 8 491
11. 9 012
12. 12 221

# Answers

**Page 1**

**1.** 1 087 **2.** 2 068 **3.** 1 188 **4.** 2 068 **5.** 1 066 **6.** 1 086 **7.** 1 389 **8.** 1 191
**9.** £3.86 **10.** £2.68 **11.** 56.8km **12.** 86.6km **13.** 32.5km **14.** £2.84 **15.** £2.53

**Page 2**

**1.** 2 268 **2.** 3 279 **3.** 2 289 **4.** 2 879 **5.** 1 045 **6.** 1 122 **7.** 1 161 **8.** 1 086
**9.** £4.87 **10.** £3.05 **11.** 62.4km **12.** 57.9km **13.** 28.6km **14.** £5.63 **15.** £3.87

# Open Ended Problems

Please read the first page carefully. We are expecting you to show, draw, write, explain however you want to how you got to the answers you have! This is part of this learning.

The answers are included at the end of this task for you to check and mark your own work before you hand it in. Please correct any answers that need to be and ensure you make a note of how your understanding of the problem has changed after correcting it.

# Notes

- These open-ended problem solving cards are designed to make you think and give us thoughtful and creative responses.
- More than one answer is acceptable and we want you to explore different possibilities.
- Read through all the ones we have given you and pick at least four to try.

Henry is at the toy store. He has £10 to spend on a gift for his little brother.

Toy trains cost £5.00. Balls cost £2.50. Building blocks cost £4.50.

List some different gift combinations that Henry could buy.

Calculate the total amount Henry would pay for each combination, as well as any change he might receive.

10

Lee is thinking of a four-digit number between 3000 and 3500.

The digit in the units column is the same as the digit in the hundreds column.

The digit in the thousands column and the digit in the tens columns are both odd.

Every digit in the number is a multiple of 3.

List some of the possible four-digit numbers that Lee is thinking of.

14

Alexia is having a dinner party. She has invited 24 friends.

Alexia must organise the tables and chairs.

There must be no less than 2 people and no more than 6 people at each table.

Draw some possible table plans for Alexia's dinner party.

There does not need to be the same number of people at each table.

11

The answer to a multiplication sum is 72.

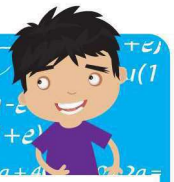
What could the multiplication sum be?

List some possibilities.

Draw pictures to represent each of these sums.

16

# PROBLEM SOLVING



Chen is playing a game at a carnival. He must pick three numbers out of a bag.

The numbers in the bag are: 21, 8, 16, 32, 65 and 14.

Chen will win a prize if the three numbers add up to a number less than 50; if the three numbers add up to a multiple of five; or if the three numbers add up to a number greater than 80.

List some winning combinations of numbers.



# PROBLEM SOLVING 123

Choose four digits between 1 and 9.

Create as many numbers involving decimals as you can, using these four digits.

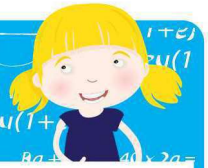
Write your numbers in ascending and descending order.

Place your numbers on a number line.

Draw a picture which represents each decimal.



# PROBLEM SOLVING



Jennifer is at the clothing store. She has £25 to spend on a gift for her dad.

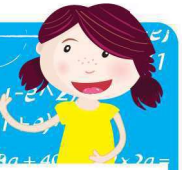
Shirts cost £12.00, trousers cost £22.00, ties cost £6.50 and socks cost £3.00.

List some different gift combinations that Jennifer could buy.

Calculate the total amount Jennifer would pay for each combination, as well as any change she might receive.



# PROBLEM SOLVING



Dominique's grade are going on a school outing. There are 160 students in the grade.

The students must be placed in small groups during the outing.

There must be no less than 4 and no more than 10 students in each group.

How many groups could there be? How many students would be in each group?

List some possibilities.

# Answers to open ended problems – week 6

## Yellow questions

**Henry's Toys**

Things we know:

Henry has £10 to spend on something for his brother.
Toy trains cost £5.00
Balls cost £2.50
Blocks cost £4.50

What combinations can he buy with his £10 and the change he will get – here are some ideas, yours may be different.

Train + ball
£5 + £2.50 = £7.50 which gives you £2.50 change

Train + blocks
£5 + £4.50 = £9.50 which gives you 50p change

Train + 2 balls
£5 + £2.50 + £2.50 = £10 so no change

Blocks + ball
£4.50 + £2.50 = £7 which gives £3 change

**Alexia's dinner party problem**

With 24 guests, Alexia can have many different table plans. Your plans will probably all look different and the question doesn't really say if Alexia is sitting down as well. As long as your pictures can tick all these criteria, you can tick your work!

- Do you have either 24 seats or 25 seats all together?
- Have all your tables got 2 or more seats at them?
- Have all your tables got 6 or less at them?

**Lee's number problem**

What we know – Lee is thinking of a 4 digit number between 3000 and 3500.
The digit in the unit (ones) column is the same as the digit in the hundreds column. The digits in the thousands and tens column are both odd numbers. Every digit is a multiple of three.

The last clue is the one we should look at first! Digits that are multiples of three are 3, 6 and 9 so they are the only digits we are using here.

I'm using a grid to help me record some possibilities. Remember the thousands and tens need to be odd numbers and the ones and hundreds are the same digit.

| Th | H | T | O |
|---|---|---|---|
| 3 | 6 | 9 | 6 |
| 3 | 3 | 9 | 3 |
| 3 | 9 | 9 | 9 |
| 9 | 6 | 3 | 6 |
| 9 | 3 | 3 | 3 |
| 9 | 9 | 3 | 9 |

See how many you can find and as an extra task, you could put them in order!

**The answer is 72**

For this question you could look at sets of tables to see which tables include the answer 72 as a start.

For example if you look at the six times table, 6 x 12 is 72. Think how you could draw that? You could draw six lots of 12 and also 12 lots of 6.

72 is also an even number – you'll not see 72 as an answer in the 2 times table but if you know it's even, you can halve it to give you another picture to draw.

See how many you can find to draw 😊

# Blue Questions

**Chen's problem**

Chen only wins a prize if his three numbers fit one of these criteria:

1. They add up to a number less than 50
2. They add up to a multiple of 5 (something in the 5 times table) – the answer will need to end in a 0 or a 5 to be a multiple of 5.
3. They add up to a number greater than 80

The numbers he can pick from are: 21, 8, 16, 32, 65 and 14

Here are some combinations that fit the first criteria:

16 + 8 + 14 = 38 21 + 8 + 14 = 43

Here are some that fit the second:

16 + 14 + 65 = 95 32 + 8 + 65 = 105

Here are some that fit the last:

32 + 14 + 65 = 111 21 + 8 + 65 = 94

**Jennifer's gifts**

Things we know:

Shirts cost £12
Trousers cost £22
Ties cost £6.50
Socks cost £3

What combinations can she buy with her £25 and the change she will get – here are some ideas, yours may be different.

Shirt + Tie + Socks £12 + £6.50 + £3 = £21.50 and £3.50 change

3 Ties £6.50 x 3 = £19.50 and £5.50 change

Trousers + Socks £22 + £3 = £25 and no change

**Number picks**

Pick any four digits between 1 and 9 and create as many numbers involving decimals as you can.

Write the numbers in ascending and descending order; put your numbers on a number line; draw a picture to represent the numbers you've created.

Your responses will be very different. Here are a few I have created using 2, 4, 6 and 8.

2.468 2.486 2.648 2.684 2.846 2.864

24.68 24.86 26.48 26.84 28.46 28.64

I've put them in ascending order as I created them.

Think about your place value knowledge for decimals to put them on a number line and draw a picture.

| hundreds | tens | ones | • | tenths | hundredths | thousandths |
|---|---|---|---|---|---|---|
| | | 2 | • | 4 | 6 | 8 |
| | 2 | 4 | • | 6 | 8 | |

**Dominique's school outing**

What do we know:

There are 160 students in the grade (year group). You need to put them in groups of:

- No less than 4
- No more than 10

How many groups could there be? How many students would be in each group?

There will be lots of different groupings you could make, here are a few suggestions on how you could go about this.

Four is the smallest grouping you can have so how many 4s are in 160?

160 ends in a 0 so it's divisible by 5 so how many groups of 5 will you get?

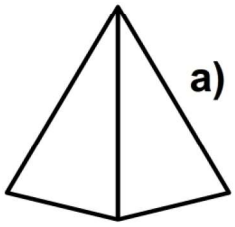
Try dividing 160 by 6 and 7 – you will get remainders – is this an issue? The question doesn't ask for equal groups so what could you do?

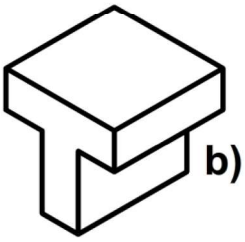
The options are endless. Give us a few of your ideas.

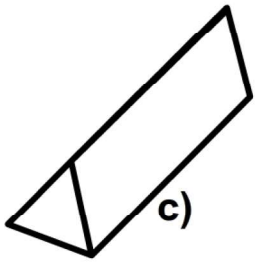
Properties of 3D shapes

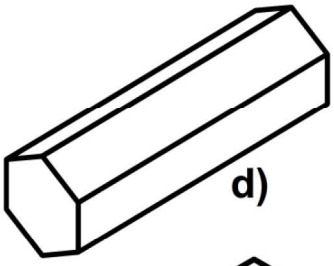
Maths worksheets from urbrainy.com

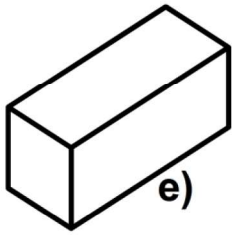
Join each shape to its name.



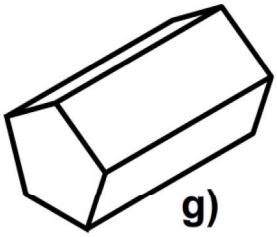



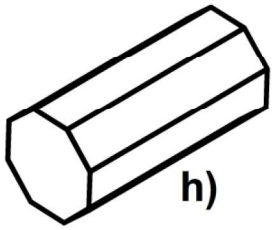



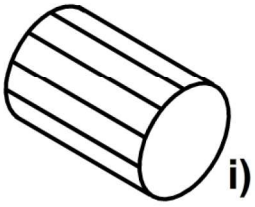







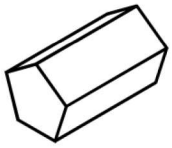
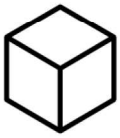
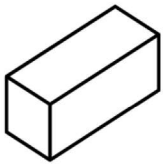
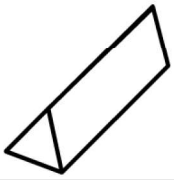
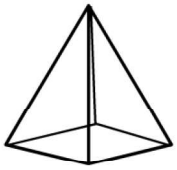
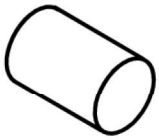




| |
|---|
| **Cube** |
| **Triangular Prism** |
| **Cuboid** |
| **Hexagonal Prism** |
| **Cylinder** |
| **Pentagonal Prism** |
| **'T' Shaped Prism** |
| **Octagonal Prism** |
| **Pyramid** |

Name:

Fill in the table for the shapes below. One has been done for you.

| Shape | Prism? | Number of Faces | Number of Edges | Number of Vertices |
|---|---|---|---|---|
|  | Yes | 7 | 15 | 10 |
|  | | | | |
|  | | | | |
|  | | | | |
|  | | | | |
|  | | | | |

Name:

Describe the shapes below. One has been done for you.

**A pentagonal prism** has two identical pentagonal faces at opposite ends and five rectangular faces.

**A cuboid has** _____

_____

_____

**A cube has** _____

_____

_____

**A triangular prism has** _____

_____

_____

**A cylinder has** _____

_____

_____

**A pyramid has** _____

_____

_____

Describe the shapes below.

**A hexagonal prism has** _____

_____

_____

**An octagonal prism has** _____

_____

_____

**A cone has** _____

_____

_____

**A sphere has** _____

_____

_____

**A hemi-sphere has** _____

_____

_____

# 2-D & 3-D Shape Crossword _____

## Across Clues

**3.** I am 3-D , I have 5 faces and vertices, 8 edges and I'm found in Egypt. (18)

**4.** I am 2-D, I have 1 curved side and the same diameter across at any side. (6)

**8.** I am 3-D, I have 6 faces, 8 vertices & 12 edges. New shoes come in me (16)

**11.** I am 2-D, I have 8 sides and you would find me as a stop sign. (7)

**12.** I am 2-D, I have 1 curved side & a different diameter across at any side. (4)

**13.** I am 2-D, I have 5 sides and the sum of my internal angles is 540°. (8)

**14.** I am 2-D, my opposite sides are equal length & corners are right angles. (9)

**15.** I am 2-D, all my sides are equal length and my 4 corners are right angles. (6)

**16.** I am 3-D and I have no vertices or edges (6)

**17.** I am 2-D, I have 2 pairs of parallel sides and I can be called another name starting with 'D'. (7)

**18.** I am 2-D and I have no parallel sides but I do have 2 pairs of adjacent equal length sides. You might like to fly me at the beach or in the park. (4)

**19.** I am 3-D, I have 6 faces, 8 vertices and 12 edges. I'm like a dice. (4)

## Down Clues

**1.** I am 2-D, I have 4 sides and 2 of them are parallel. The sum of my internal angles is 360° (9)

**2.** I am 3-D, I have 3 faces, 2 edges but no vertices. (8)

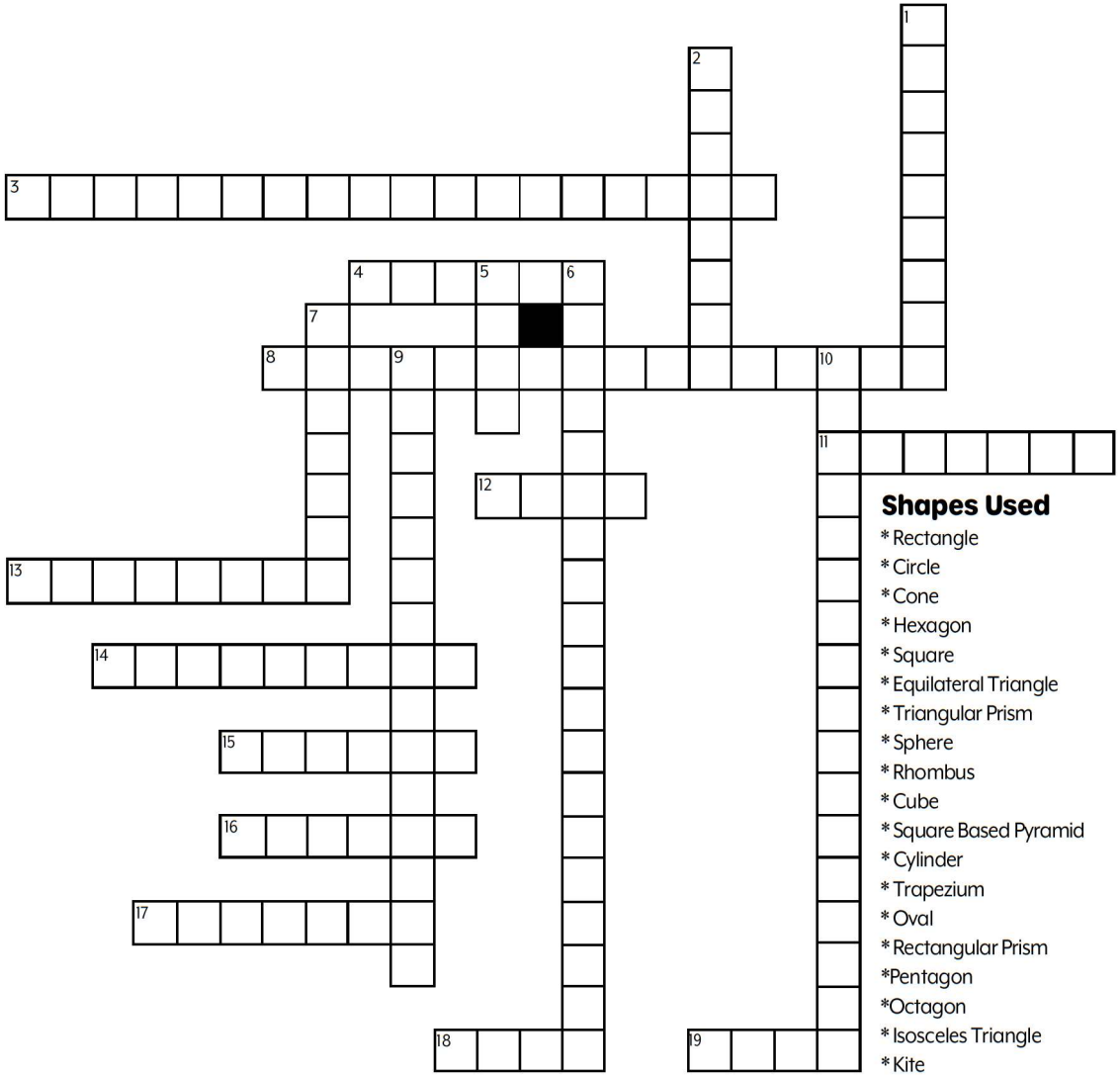
**5.** I am 3-D and I have no vertices, but 2 faces and 1 edge. (4)

**6.** I am 2-D and I have 3 sides of equal length and 3 equal angles. (19)

**7.** I am 2-D, I have 6 sides and the sum of my internal angles is 720°. (7)

**9.** I am 3-D and I have 5 faces and 9 edges. I look like a tent. (15)

**10.** I am 2-D, I have 3 sides and 2 of my sides are equal length. I also have 2 equal angles. (17)



### Shapes Used

* Rectangle
* Circle
* Cone
* Hexagon
* Square
* Equilateral Triangle
* Triangular Prism
* Sphere
* Rhombus
* Cube
* Square Based Pyramid
* Cylinder
* Trapezium
* Oval
* Rectangular Prism
*Pentagon
*Octagon
* Isosceles Triangle
* Kite

# Answers

## Page 1

a) pyramid
b) 'T' shaped prism
c) triangular prism
d) hexagonal prism
e) cuboid
f) cube
g) pentagonal prism
h) octagonal prism
i) cylinder

## Page 2

| Shape | Prism? | Number of Faces | Number of Edges | Number of Vertices |
|---|---|---|---|---|
|  | **Yes** | **7** | **15** | **10** |
|  | Yes | 6 | 12 | 8 |
|  | Yes | 6 | 12 | 8 |
|  | Yes | 5 | 9 | 6 |
|  | No | 5 | 8 | 5 |
|  | Yes | 3 | 2 | 0 |

# 2-D & 3-D Shape Crossword (Solution)