To the teacher: The grid below outlines the content of this workbook.

To the pupil: You can colour in the circles as you complete each workbook page to show how much work you have done in your book.

<table>
<thead>
<tr>
<th>Content</th>
<th>Workbook pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halves and quarters</td>
<td>3  4  5  6  7  8</td>
</tr>
<tr>
<td>Counting to 100</td>
<td>9  10  11</td>
</tr>
<tr>
<td>Units of time</td>
<td>12  13</td>
</tr>
<tr>
<td>Place value to 100</td>
<td>14  15</td>
</tr>
<tr>
<td>Position and movement</td>
<td>16  17</td>
</tr>
<tr>
<td>Counting patterns</td>
<td>18  19  20  21  22</td>
</tr>
<tr>
<td>Telling and measuring time</td>
<td>23  24  25  26  27  28</td>
</tr>
<tr>
<td>Division</td>
<td>29  30</td>
</tr>
<tr>
<td>Multiplication</td>
<td>31  32  33  34</td>
</tr>
<tr>
<td>Position and movement</td>
<td>35  36  37  38  39</td>
</tr>
<tr>
<td>Adding sets of numbers</td>
<td>40  41  42</td>
</tr>
<tr>
<td>Adding multiples of 10</td>
<td>43  44  45  46</td>
</tr>
<tr>
<td>Doubling and halving</td>
<td>47  48</td>
</tr>
</tbody>
</table>
Each shape is divided into two parts.

The two parts in each shape are exactly the same. Each part is one-half of the shape. We write $\frac{1}{2}$.

1. Colour one-half of each shape.

2. Draw a line to cut each shape into two equal parts. For example:
You can make two equal groups from one bigger group.

One group of 4.

Two groups of two.
One-half of 4 is 2.

The number in the equal group is half of the number in the bigger group.

Colour half the things in each group. Write the answers.

1 One-half of 6 is _______.

2 One-half of 10 is _______.

3 One-half of 8 is _______.

4 One-half of 4 is _______.

5 One-half of 12 is _______.

6 One-half of 2 is _______.

Date:
Each shape is divided into four parts.

The four parts in each shape are exactly the same. Each part is one-quarter of the shape. We write $\frac{1}{4}$.

1. Colour one-quarter of each shape.

2. Draw lines to divide each shape into quarters. For example:
You can make four equal groups from one bigger group.

One group of 4.

Four groups of 1.

\( \frac{1}{4} \) of 4 is 1.

The number in each equal group is one-quarter of the number in the bigger group.

Colour to show one-quarter. Write the answers.

1. \( \frac{1}{4} \) of 8 is 2.

2. \( \frac{1}{4} \) of 12 is 3.

3. \( \frac{1}{4} \) of 20 is 5.

4. \( \frac{1}{4} \) of 16 is 4.
1. Colour half of each shape.

2. Colour half of each group.

3. Colour one-quarter of each shape.

4. Colour one-quarter of each group.
Salma has two cakes.

1. How many pieces did she cut the first cake into?  
   ____________________  
   two

2. What name can we give each piece of the first cake?  
   ____________________  
   one-half

3. How many pieces did she cut the second cake into?  
   ____________________  
   four

4. What name can we give each piece of the second cake?  
   ____________________  
   one-quarter

Salma gives some of the cake to her neighbours. She gives Mrs Moosa one piece of the first cake.

5. How much is left of the first cake?  
   ____________________  
   1/2

She gives Mr Bloom two pieces of the second cake.

6. How much is left of the second cake?  
   ____________________  
   1/2 or 2/4

7. Colour these fraction bars to show what is left of each cake.

   First cake  
   | half | quarter | quarter |

   Second cake  
   | half | quarter | quarter |

8. Complete this sentence:
   Half of the first cake is the same size as _____________________ of the second cake.
1 Fill in the missing numbers on the hundred chart.

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<td>50</td>
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<td>68</td>
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<td>81</td>
<td>82</td>
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<td>86</td>
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<tr>
<td>91</td>
<td>92</td>
<td>93</td>
<td>94</td>
<td>95</td>
<td>96</td>
<td>97</td>
<td>98</td>
<td>99</td>
<td>100</td>
</tr>
</tbody>
</table>

2 Count down each column. Say each number name out loud.

3 Start at this number. Count back in tens. Write the first three numbers you count.

- **a** 33 ______________________
- **b** 38 ______________________
- **c** 49 ______________________
- **d** 52 ______________________
- **e** 66 ______________________
- **f** 75 ______________________

4 Say three numbers between: own work

- **a** 10 and 20
- **b** 30 and 40
- **c** 50 and 60
- **d** 80 and 90
Write the missing numbers on the stepping stones.

1. 49 50 51 52 53 54 55 56
2. 99 98 97 96 95 94
3. 23 33 43 53 63 73 83 93
4. 90 80 70 60 50 40
5. 52 54 56 58 60 62
6. 95 90 85 80 75 70 65
7. 79 81 83 85 87 89
8. 76 66 56 46 36 26 16
Each child had to count out 24 counters.

Sara counted in threes:
3, 6, 9, 12, 15, 18, 21, 24

Mandy counted in fours:
4, 8, 12, 16, 20, 24

| Count in threes. Write the missing numbers. |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 15              | 18              | 21              | 24              | 27              | 30              | 33              |
| 30              | 33              | 36              | 39              | 42              | 45              | 48              |
| 40              | 43              | 46              | 49              | 52              | 55              | 58              |
| 80              | 83              | 86              | 89              | 92              | 95              | 98              |

| Count in fours. Write the missing numbers. |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 20              | 24              | 28              | 32              | 36              | 40              | 44              |
| 32              | 36              | 40              | 44              | 48              | 52              | 56              |
| 20              | 24              | 28              | 32              | 36              | 40              | 44              |
Days, weeks, months and years

1. Circle the names of the days. Underline the names of the months.
   - Circle: Monday, Friday, January, May, Wednesday, Saturday, June, November, September
   - Underline: January, February, March, April, May, June, July, August, September, October, November, December

2. Say the days in order. Start with Monday.

3. Say the months in order. Start with January.

4. Draw the lines to match:
   - 7 days to year
   - 12 months to month
   - About 4 weeks to week

5. Write the name of the day.

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>Monday</td>
</tr>
<tr>
<td>Thursday</td>
<td>Friday</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Saturday</td>
</tr>
</tbody>
</table>
1. Write these months in the correct order.

<table>
<thead>
<tr>
<th>March</th>
<th>July</th>
<th>August</th>
<th>May</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>February</td>
<td>September</td>
<td>April</td>
<td>October</td>
</tr>
</tbody>
</table>

1st January 7th July
2nd February 8th August
3rd March 9th September
4th April 10th October
5th May 11th November
6th June 12th December

2. Here are the dates of five children's birthdays.

a. Whose birthday is first in the year? Ling's
b. Whose birthday is in the fifth month? John
c. Which child has the last birthday of the year? Lean
d. In which month were you born? own answer
Write how many tens and units.
Write the number.
Write the number name.

1. 7 tens 3 units  
   seventy-three  
   73

2. 3 tens 7 units  
   thirty-seven  
   37

3. 4 tens 5 units  
   forty-five  
   45

4. 5 tens 6 units  
   fifty-six  
   56

5. 8 tens 2 units  
   eighty-two  
   82

6. 6 tens 8 units  
   sixty-eight  
   68
More place value

Some children made numbers with arrow cards.

Write the number \[37\]

What is 30 + 7 \[37\]

1 Complete these.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>[45]</th>
<th>[45]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>4</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>b</td>
<td>8</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>c</td>
<td>1</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

2 These are the numbers some children made.  
Say the number.  
Complete the place value table.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>3</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>8</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
1. Circle the correct word.

a. The chalk is on the left right

b. The ball is on the left right

c. The leaf is on the left right

d. The scissors are on the left right

2. Draw 4 cubes in the right pan and 2 crayons in the left pan.
Turning left and right

For paths 1 to 3 start at the way in. Use a different colour to draw each path.

1. Go in. Turn left. Who do you see? ___________________ The princess

2. Go in again. Find the sword. How many times did you turn left? ______ twice

3. Draw lines to show how you would get to:
   a. the giant
   b. the treasure [own work]
   c. the dragon

4. a. Tell your partner how to get to the lake. [own work]
   b. Listen and draw the path as your partner tells you how to get to the lake.
1  Use the 100 chart.
   a  Colour the odd numbers yellow. Colour the even numbers blue.
   b  Start on 5. Count in 5s to 100. Circle each number you count.
   c  Start on 10. Count in 10s to 100. Underline each number you count.

2  Tell a partner what patterns you can see on the chart.

3  Complete each number pattern. Tell your partner how each pattern works.

   a  25  30  35  40  45  50
   b  40  50  60  70  80  90
   c  40  38  36  34  32  30
   d  43  46  49  51  54  57
   e  56  60  64  68  72  76
1. Fill in the missing numbers on each number line. Tell your partner what the pattern is.

   a. 30 35 40 45 50 55 60 65 70 counting in fives

   b. 96 86 76 66 56 46 36 counting in tens

   c. 23 33 43 53 63 73 83 counting in tens

   d. 47 50 53 56 59 61 64 67 70 counting in threes

   e. 100 97 94 91 88 85 82 79 counting in threes

2. Write the next three numbers in each pattern.

   a. 46 48 50 52 54 56

   b. 85 80 75 70 65 60

   c. 44 49 54 59 64 69

   d. 43 47 51 55 59 63 67
# Ten more, ten less

## 1. Complete the table.

<table>
<thead>
<tr>
<th>Number name</th>
<th>Numeral</th>
<th>10 more</th>
<th>10 less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twenty</td>
<td>20</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Fifty</td>
<td>50</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>Seventy</td>
<td>70</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Thirty</td>
<td>30</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Ten</td>
<td>10</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>Forty</td>
<td>40</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>Sixty</td>
<td>60</td>
<td>70</td>
<td>50</td>
</tr>
<tr>
<td>Eighty</td>
<td>80</td>
<td>90</td>
<td>70</td>
</tr>
<tr>
<td>Ninety</td>
<td>90</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>One hundred</td>
<td>100</td>
<td>110</td>
<td>90</td>
</tr>
</tbody>
</table>

## 2. Fill in the missing numbers in each number sentence. Use the 100 chart on page 18 if you need help.

**a**
- \(20 + 10 = \underline{30}\)  
- \(40 + 10 = \underline{50}\)  
- \(90 + 10 = \underline{100}\)  
- \(10 + 50 = \underline{60}\)  
- \(10 + 70 = \underline{80}\)  
- \(10 + 30 = \underline{40}\)

**b**
- \(10 + \underline{52} = 62\)  
- \(10 + \underline{35} = 45\)  
- \(10 + \underline{49} = 59\)  
- \(\underline{27} + 10 = 37\)  
- \(\underline{28} + 10 = 38\)  
- \(\underline{85} + 10 = 95\)

**c**
- \(81 - 10 = \underline{71}\)  
- \(95 - 10 = \underline{85}\)  
- \(53 - 10 = \underline{43}\)  
- \(99 - 10 = \underline{89}\)  
- \(47 - 10 = \underline{37}\)  
- \(71 - 10 = \underline{61}\)

**d**
- \(93 - \underline{10} = 83\)  
- \(57 - \underline{10} = 47\)  
- \(32 - \underline{10} = 22\)  
- \(\underline{73} - 10 = 83\)  
- \(\underline{99} - 10 = 89\)  
- \(\underline{27} - 10 = 17\)
Do you remember how to use the < and > signs?

10 < 30 means 10 is smaller than 30
40 > 30 means 40 is greater than 30

1 Write < or > between the numbers.
   a 27 < 31  b 68 < 86  c 53 < 55
   d 37 > 27  e 83 > 78  f 99 < 100
   g 45 < 54  h 87 > 43

2 Write <, > or = between the number sentences.
   a 10 + 30 = 50 − 10  b 30 − 10 < 20 + 10
   c 50 + 10 < 80 − 10  d 40 − 10 < 40 + 10
   e 90 + 10 < 80 + 10  f 40 + 10 = 60 − 10
   g 90 − 10 = 70 + 10  h 50 + 10 < 80 − 10

3 Here are some number patterns.
   There is a number that doesn’t fit in each pattern.
   Circle the number that doesn’t fit.

   a 30 40 50 55 60 70
   b 27 26 31 25 24 23
   c 42 44 46 48 49 50
   d 100 98 96 95 94 92
Choose a number between: own work
10 and 20  [ ]  20 and 30  [ ]

Show where your number would be on this number line.

1
Choose a number between:
20 and 30  [ ]  40 and 50  [ ]
Show your numbers on the number line.

2
Choose a number between:
30 and 40  [ ]  40 and 50  [ ]
Show your numbers on the number line.

3
Choose a number between:
60 and 70  [ ]  80 and 90  [ ]
Show your numbers on the number line.
1. Write these times in the correct place in the table.
   a. 45 seconds  
   b. 1 second  
   c. 120 seconds  
   d. 2 minutes  
   e. 59 seconds  
   f. 60 seconds  
   g. 1 hour

<table>
<thead>
<tr>
<th>Less than 1 minute</th>
<th>Exactly 1 minute</th>
<th>More than 1 minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 secs</td>
<td>60 secs</td>
<td>120 secs</td>
</tr>
<tr>
<td>1 sec</td>
<td></td>
<td>2 mins</td>
</tr>
<tr>
<td>59 secs</td>
<td></td>
<td>1 hr</td>
</tr>
</tbody>
</table>

2. Write these times in the correct place in the table.
   a. \(\frac{1}{2}\) an hour  
   b. 120 minutes  
   c. A day  
   d. 60 minutes  
   e. 60 seconds  
   f. 45 minutes

<table>
<thead>
<tr>
<th>Less than 1 hour</th>
<th>Exactly 1 hour</th>
<th>More than 1 hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\frac{1}{2}) an hour</td>
<td>60 mins</td>
<td>120 mins</td>
</tr>
<tr>
<td>60 secs</td>
<td></td>
<td>A day</td>
</tr>
<tr>
<td>45 mins</td>
<td></td>
<td>90 mins</td>
</tr>
</tbody>
</table>
How long will it take? Circle the correct time.

- Counting to 60 slowly.
  - 1 second
  - 1 minute

- Turn a page
  - 1 second
  - 1 minute

- Tie a shoelace
  - 10 seconds
  - 10 minutes

- Wash your hands
  - 15 seconds
  - 15 minutes

- Burn a small candle
  - 30 seconds
  - 30 minutes
How long does it take?

It takes about a quarter of an hour to wash and dress.

It takes about half an hour to eat dinner.

It takes about an hour and a half to play a soccer match.

Remember < means less than.
> means more than.

1 How long will it take? Circle your estimate.

- a < quarter of an hour
  > quarter of an hour
- b < quarter of an hour
  > quarter of an hour
- c < an hour
  > an hour
- d < an hour
  > an hour
- e < half an hour
  > half an hour
- f < half an hour
  > half an hour

other choices are possible
Read the time on each clock. Own work
Draw a line to match each picture to a suitable time.
Say the time shown on each clock.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><img src="image1.png" alt="Clock 1" /></td>
<td><img src="image2.png" alt="Clock 2" /></td>
</tr>
<tr>
<td>eleven o’clock</td>
<td>half past 11</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><img src="image3.png" alt="Clock 3" /></td>
<td><img src="image4.png" alt="Clock 4" /></td>
</tr>
<tr>
<td>seven o’clock</td>
<td>half-past 10</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td><img src="image5.png" alt="Clock 5" /></td>
<td><img src="image6.png" alt="Clock 6" /></td>
</tr>
<tr>
<td>half-past three</td>
<td>half-past five</td>
</tr>
</tbody>
</table>
Draw lines to match the clocks to the times.

- half past three
- three o’clock
- half past ten
- half past one
- eleven o’clock
- half past seven
- half past nine
- nine o’clock
There are 6 counters and 3 boxes.
Share them so that each box has
the same amount.
Draw the counters in each box.

1

2

3

4
This bar of chocolate has 24 small blocks.

Draw how you would divide the chocolate to get equal shares.
Use different colours to show the shares.

1. two equal shares
2. three equal shares
3. four equal shares
4. six equal shares
5. eight equal shares
6. twelve equal shares
Cindy puts 4 books on top of each other. We can say one stack of 4 is 4.

Or, 1 times 4 is 4. We write $1 \times 4 = 4$

This is a multiplication sign. We read it as ‘times’.

---

1  Tenille arranges jelly beans in rows like this.

a  How many jelly beans in one row? 2

b  How many jelly beans in two rows? 4

c  Fill in this table to show the number of beans in different numbers of rows.

<table>
<thead>
<tr>
<th>Rows of 2</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of beans</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>18</td>
<td>20</td>
</tr>
</tbody>
</table>

2  Complete the sentences.

a  1 row of 2 is 2 1 times 2 = 2 1 × 2 = 2

b  2 rows of 2 is 4 2 times 2 = 4 2 × 2 = 4

c  3 rows of 2 is 6 3 times 2 = 6 3 × 2 = 6

d  4 rows of 2 is 8 4 times 2 = 8 4 × 2 = 8

e  5 rows of 2 is 10 5 times 2 = 10 5 × 2 = 10
Multiplying by 2

There are seven groups of 2 counters. How many counters are there altogether? You can count in twos to find the answer.

2  4  6  8  10  12  14

You can multiply to find the answer. $7 \times 2 = 14$

1 Write the answers. Use the number line to help you.

a  $1 \times 2 = \underline{2}$  $2 \times 1 = \underline{2}$  
b  $2 \times 2 = \underline{4}$

c  $3 \times 2 = \underline{6}$  $2 \times 3 = \underline{6}$  
d  $4 \times 2 = \underline{8}$  $2 \times 4 = \underline{8}$

e  $5 \times 2 = \underline{10}$  $2 \times 5 = \underline{10}$  
f  $6 \times 2 = \underline{12}$  $2 \times 6 = \underline{12}$

g  $7 \times 2 = \underline{14}$  $2 \times 7 = \underline{14}$  
h  $8 \times 2 = \underline{16}$  $2 \times 8 = \underline{16}$

i  $9 \times 2 = \underline{18}$  $2 \times 9 = \underline{18}$  
j  $10 \times 2 = \underline{20}$  $2 \times 10 = \underline{20}$

2 How would you work out $11 \times 2$? Tell your partner your ideas.

Discussion
Multiples of 10

Each box has 10 crayons.
How many crayons are there in three boxes?
You can count in tens to find the answer.
You can multiply to find the answer.

10 × 3 = 30 crayons

1. Write the answers. Use the pictures to help you.
   a. 10 × 1 = _____________
   b. 10 × 2 = _____________
   c. 10 × 3 = _____________
   d. 10 × 4 = _____________
   e. 10 × 5 = _____________
   f. 10 × 6 = _____________
   g. 10 × 7 = _____________
   h. 10 × 8 = _____________
   i. 10 × 9 = _____________
   j. 10 × 10 = _____________

2. Look at your answers carefully.
   What happens when you multiply a number by 10? Tell your partner.

Discussion
Write the answers. Use the number line to help you.

\[
\begin{align*}
a) & \quad 1 \times 10 = 10 & \quad 10 \times 1 = 10 \\
b) & \quad 2 \times 10 = 20 & \quad 10 \times 2 = 20 \\
c) & \quad 3 \times 10 = 30 & \quad 10 \times 3 = 30 \\
d) & \quad 4 \times 10 = 40 & \quad 10 \times 4 = 40 \\
e) & \quad 5 \times 10 = 50 & \quad 10 \times 5 = 50 \\
f) & \quad 6 \times 10 = 60 & \quad 10 \times 6 = 60 \\
g) & \quad 7 \times 10 = 70 & \quad 10 \times 7 = 70 \\
h) & \quad 8 \times 10 = 80 & \quad 10 \times 8 = 80 \\
i) & \quad 9 \times 10 = 90 & \quad 10 \times 9 = 90 \\
j) & \quad 10 \times 10 = 100 \\
\end{align*}
\]

Try to complete this $10 \times$ multiplication table without using the number line.

<table>
<thead>
<tr>
<th>$\times$</th>
<th>5</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>4</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>50</td>
<td>30</td>
<td>10</td>
<td>20</td>
<td>80</td>
<td>70</td>
<td>60</td>
<td>40</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>
One turn is a complete circle.

A quarter-turn right makes a corner.

A quarter-turn left makes a corner.

A half-turn left or a half-turn right ends in the same place.

1. Draw where each arrow will be after a quarter-turn clockwise.

2. Draw where each arrow will be after a quarter-turn anti-clockwise.
Help each animal get out. Draw the path they take. Write how many quarter-turns they make.

5 quarter-turns to get out.

4 quarter-turns to get out.

7 quarter-turns to get out.

3 quarter-turns to get out.
Measuring turns

1. Fold a piece of paper like this to get a straight edge.
2. Fold it along the edge to make a corner like this.
3. Flatten the folds.

In maths a quarter-turn is called a **right angle**. You have made a right angle. You can use your right angle to measure turns. If they are the same size as your angle, they are quarter-turns.

Use your right angle to measure these turns. Put a tick next to those that are exactly a quarter-turn.

- a ✓
- b
- c
- d ✓ ✓
- e ✓
- f ✓
- g ✓
- h
Draw the path from the way in to the king.
How many right-angle turns did you make?
**20 turns**

Draw the path from the queen to the way out.
How many right-angle turns did you make?
**21 turns**

Which path had the most right-angle turns?
*The path from the queen*
Always start at the 🔴. Follow the directions. Write the name of the shape you find in the box you finish on.

1. a. Forward 3. Quarter-turn right. Forward 5. Triangle
   b. Forward 5. Quarter-turn left. Forward 7. Square
   c. Forward 6. Quarter-turn right. Forward 3. Circle
   d. Forward 7. Quarter-turn left. Forward 7. Square

2. Write how you would get to the star. Forward 9, quarter-turn left, forward 7

3. Write how you would get to the rectangle. Forward 9, quarter-turn right, forward 7
You already know you can reorder numbers and find pairs that make 10 to make addition easier.

\[
\begin{align*}
4 + 9 + 6 + 1 & \quad 3 + 9 + 6 + 1 + 4 \\
= 10 + 10 & \quad = 3 + 10 + 10 \\
= 20 & \quad = 23
\end{align*}
\]

Do these additions. Show your partner how you worked each one out.

1. \[3 + 7 + 9 + 1 = 20\]
2. \[5 + 4 + 6 + 5 + 2 = 22\]
3. \[8 + 1 + 2 + 9 = 20\]
4. \[3 + 3 + 6 + 4 + 7 = 23\]
5. \[3 + 6 + 5 + 4 = 18\]
6. \[9 + 2 + 8 + 5 + 1 = 25\]
7. \[9 + 8 + 1 + 6 + 4 = 28\]
8. \[3 + 3 + 2 + 8 + 4 = 20\]
9. \[8 + 7 + 3 + 7 + 2 = 27\]
10. \[1 + 3 + 7 + 8 + 9 = 28\]
Add four or five numbers

You can count on to add groups of small numbers. Count on your fingers or use a number line or a 1–100 chart to help you.

\[2 + 3 + 1 + 4 + 2 = 12\]

Remember you can add in any order. It is quicker to count on from a bigger number.

Add.
Show your partner how you got each answer.

1. \[2 + 6 + 8 + 3 = 19\]
2. \[2 + 6 + 4 + 1 = 13\]
3. \[1 + 7 + 3 + 9 = 20\]
4. \[5 + 5 + 7 + 2 = 19\]
5. \[9 + 0 + 8 + 2 = 19\]
6. \[10 + 10 + 3 + 7 = 30\]
7. \[6 + 3 + 2 + 8 + 4 = 23\]
8. \[6 + 4 + 1 + 8 + 1 = 20\]
9. \[4 + 9 + 3 + 7 + 1 = 24\]
10. \[10 + 3 + 7 + 8 + 3 = 31\]
Find the correct numbers.
Colour them.
Write the sum.

For example:

1
\[
\begin{array}{ccc}
3 & 1 & 3 \\
1 & 5 & 4 \\
10 & 2 & 2 \\
\end{array}
\]
\[10 + 2 + 5 + 3 = 20\]

2
\[
\begin{array}{ccc}
13 & 1 & 3 \\
1 & 5 & 4 \\
9 & 2 & 2 \\
\end{array}
\]
\[9 + 1 + 5 + 2 = 17\]

3
\[
\begin{array}{ccc}
8 & 1 & 8 \\
1 & 5 & 4 \\
9 & 2 & 2 \\
\end{array}
\]
\[9 + 1 + 8 + 4 = 22\]

4
\[
\begin{array}{ccc}
2 & 4 & 4 \\
3 & 10 & 3 \\
1 & 4 & 2 \\
\end{array}
\]
\[4 + 4 + 10 + 4 = 22\]

5
\[
\begin{array}{ccc}
2 & 4 & 4 \\
3 & 8 & 3 \\
1 & 4 & 2 \\
\end{array}
\]
\[1 + 4 + 8 + 3 = 16\]

6
\[
\begin{array}{ccc}
2 & 4 & 4 \\
3 & 0 & 3 \\
1 & 4 & 2 \\
\end{array}
\]
\[1 + 2 + 3 + 3 + 4 = 13\]

7
\[
\begin{array}{ccc}
3 & 2 & 6 & 1 \\
3 & 5 & 2 & 2 \\
4 & 10 & 5 & 4 \\
3 & 5 & 1 & 3 \\
\end{array}
\]
\[a \ 10 + 5 + 4 + 3 = 22\]
\[b \ 3 + 2 + 5 + 6 = 16\]
\[c \ 10 + 5 + 5 + 4 + 3 = 27\]
1 Use the number line to help you complete these 100 targets. The numbers on each slice must add up to 100.

2 Complete these sums.
   a. \(10 + 90 = \underline{100}\)
   b. \(20 + \underline{80} = 100\)
   c. \(30 + 70 = \underline{100}\)
   d. \(40 + \underline{60} = 100\)
   e. \(\underline{50} + 50 = 100\)

3 Now try these.
   a. \(100 - 10 = \underline{90}\)
   b. \(100 - 90 = \underline{10}\)
   c. \(100 - 20 = \underline{80}\)
   d. \(100 - 80 = \underline{20}\)
   e. \(100 - 30 = \underline{70}\)
   f. \(100 - 70 = \underline{30}\)
   g. \(100 - 40 = \underline{60}\)
   h. \(100 - 60 = \underline{40}\)
   i. \(100 - 50 = \underline{50}\)
Adding multiples of 10

Count on in tens to find the answers to these addition sums. Use a 1–100 chart if you need help.

1. $19 + 20 = \boxed{39}$
2. $13 + 30 = \boxed{43}$
3. $25 + 40 = \boxed{65}$
4. $39 + 40 = \boxed{79}$
5. $23 + 50 = \boxed{73}$
6. $41 + 40 = \boxed{81}$
7. $23 + \boxed{30} = 53$
8. $18 + \boxed{30} = 48$
Count back in tens to find the answers to these subtraction problems. Use a 1–100 chart if you need help.

1 46 – 20 = 26
2 67 – 40 = 27
3 51 – 30 = 21
4 67 – 50 = 17
5 47 – 40 = 17
6 39 – 20 = 19
7 45 – 10 = 35
8 89 – 20 = 69
In a number tower you find each block by adding the numbers in the two blocks below it.

Complete these number towers.

1.  
   [80]  
   [40]  [40]  
   [20]  [20]  [20]  
   [10]  [10]  [10]  [10]  

2.  
   [100]  
   [50]  [50]  
   [30]  [20]  [30]  
   [20]  [10]  [10]  [20]  

3.  
   [100]  
   [40]  [60]  
   [20]  [20]  [40]  
   [10]  [10]  [10]  [30]  

4.  
   [100]  
   [50]  [50]  
   [25]  [25]  [25]  
   [15]  [10]  [15]  [10]  

Date: 

20  30  
10  10  20  

Here are 30 counters.

If we double 30 we get 30 + 30 which gives 60.
If we halve 30 we get two equal groups of 15.

1 Try these. Use counters if you need to.

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>half</th>
<th>10</th>
<th>double</th>
<th>20</th>
<th>b</th>
<th>15</th>
<th>half</th>
<th>30</th>
<th>double</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>20</td>
<td>half</td>
<td>40</td>
<td>double</td>
<td>80</td>
<td>d</td>
<td>25</td>
<td>half</td>
<td>50</td>
<td>double</td>
<td>100</td>
</tr>
<tr>
<td>e</td>
<td>10</td>
<td>half</td>
<td>20</td>
<td>double</td>
<td>40</td>
<td>f</td>
<td>15</td>
<td>half</td>
<td>30</td>
<td>double</td>
<td>60</td>
</tr>
</tbody>
</table>

2 Complete the sentences.

<table>
<thead>
<tr>
<th></th>
<th>Double 15 → 30</th>
<th>Double 30 → 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Half of 30 is 15</td>
<td>Half of 60 is 30</td>
</tr>
<tr>
<td>c</td>
<td>Double 40 → 80</td>
<td>Double 50 → 100</td>
</tr>
<tr>
<td>e</td>
<td>Double 10 → 20</td>
<td>Double 25 → 50</td>
</tr>
<tr>
<td>b</td>
<td>Half of 80 is 40</td>
<td>Half of 100 is 50</td>
</tr>
<tr>
<td>f</td>
<td>Half of 20 is 10</td>
<td>Half of 50 is 25</td>
</tr>
</tbody>
</table>
More doubling

We can partition numbers into tens and ones to make it easier to double them.

Double 13

10

20

26

Double 47

40

80

94

1. Complete the doubling diagrams. Write the answers.

Double

15 = 30

19 = 38

25 = 50

31 = 62

Double

47 = 94

52 = 104

56 = 112

63 = 126

2. Naresh cycled 64 km in a week.
Salman cycled double this amount.
How far did Salman cycle? 128 km