Vertex Academy

Year 1 Maths workbook

16 worksheets · answers at the back

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Year 1 Maths: Counting to 100 and Place Value

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. How many tens and ones are in 58?

2. What number comes after 39?

3. Count back: 71, 70, __

4. Which is bigger, 45 or 54?

5. Write seventy-three as a number.

Spot the mistake

6. What is wrong? "Sixteen and sixty are the same number."

7. What is wrong? "Forty-two is written 402."

8. What is wrong? "After 29 comes 20."

9. What is wrong? "The 5th child in the line is closer to the front than the 2nd."

Year 1 Maths: 1st, 2nd, 3rd, Te Reo Numbers and Number Lines

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. Which position comes after 2nd?

2. What is 4 in te reo Māori?

3. What number is rua tekau mā tahi?

4. A line is labelled 0, 5, 10, 15, 20. Which two labels is 17 between?

5. What is 30 in te reo Māori?

Spot the mistake

6. What is wrong? "Writing second as 2th."

7. What is wrong? "Writing twelfth as 12nd."

8. What is wrong? "Rua tekau is 12."

9. What is wrong? "17 goes just after the 10 on a line labelled in 5s."

Year 1 Maths: Groups, Pairs and Counting in 2s and 10s

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. Count on in 2s: 14, 16, 18, __

2. Count back in 10s: 75, 65, 55, __

3. There are 9 pairs of socks. How many socks is that?

4. Is 17 odd or even?

5. A group has 5 dots and 3 dots. How many dots altogether?

Spot the mistake

6. What is wrong? "Counting in 2s from 3 gives even numbers."

7. What is wrong? "Counting in 10s from 23 goes 23, 30, 40."

8. What is wrong? "12 can only be twelve ones."

9. What is wrong? "Counting back in 2s: 40, 39, 38."

Year 1 Maths: Number Facts to 10, Doubles and Adding to 20

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. 7 + 3 = __

2. 9 + 0 = __

3. What is double 4?

4. What is half of 10?

5. 16 – 5 = __

Spot the mistake

6. What is wrong? "Thinking 5 + 0 = 0."

7. What is wrong? "For 3 + 8, start at 3 and count on 8."

8. What is wrong? "Half of 8 is 2."

9. What is wrong? "The number before 20 is 21."

Year 1 Maths: Joining, Taking Away and Equal Groups

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. 9 + 6 = __

2. 7 + __ = 11

3. 10 + 8 = __

4. How many in 4 groups of 5?

5. Share 14 grapes between 2 children. How many does each child get?

Spot the mistake

6. What is wrong? "8 – 3 is the same as 3 – 8."

7. What is wrong? "3 groups of 4 is 7."

8. What is wrong? "Sharing 12 so one child gets 6 and two get 3 is fair."

9. What is wrong? "7 + __ = 11, so the answer is 18."

Year 1 Maths: Halves and Quarters

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. How many equal parts make halves?

2. How many equal parts make quarters?

3. What is half of 10 shells?

4. What is a quarter of 8 apples?

5. A cake is cut into 2 pieces: one big and one small. Are they halves?

Spot the mistake

6. What is wrong? "Any two pieces are halves."

7. What is wrong? "A quarter is bigger than a half, because 4 is bigger than 2."

8. What is wrong? "Half of 8 is 2."

9. What is wrong? "1/4 means 4 pieces."

Year 1 Maths: Sharing Fairly: From Halves to Quarters

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. Share 12 shells equally between 4 friends. How many does each friend get?

2. What is half of 16?

3. What is a quarter of 16?

4. How many quarters make a half?

5. Halve 20, then halve it again. What do you get?

Spot the mistake

6. What is wrong? "Sharing 12 as 5, 4 and 3 is fair."

7. What is wrong? "A quarter of 8 is 4."

8. What is wrong? "Two quarters are less than a half."

9. What is wrong? "To find a quarter, share into 2 groups."

Year 1 Maths: New Zealand Coins and Notes

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. Which is worth more: 50c or $1?

2. What colour is the $5 note?

3. Which coin is worth the least?

4. How many $1 coins make $2?

5. Is $20 a coin or a note?

Spot the mistake

6. What is wrong? "The biggest coin is worth the most."

7. What is wrong? "10c is worth more than $1, because 10 is more than 1."

8. What is wrong? "$5 is a coin."

9. What is wrong? "Two 20c coins make 50c."

Year 1 Maths: The Equals Sign and Missing Numbers

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. 2 + 5 = 3 + __

2. 6 + __ = 9

3. True or false: 7 – 5 = 6 – 4

4. True or false: 4 + 3 = 8

5. 8 – 2 = 4 + __

Spot the mistake

6. What is wrong? "2 + 5 = 3 + __, so the missing number is 7."

7. What is wrong? "= means 'the answer comes next'."

8. What is wrong? "5 = 2 + 3 is wrong, because the answer comes first."

9. What is wrong? "3 + 4 = 4 + 3 is false, because the numbers moved."

Year 1 Maths: Repeating Patterns and What Comes Next

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. What comes next? red, green, blue, red, green, __

2. What is missing? apple, banana, pear, apple, __, pear

3. What is the unit of repeat in clap, stamp, jump, clap, stamp, jump?

4. In circle, square, triangle, circle, square, triangle, which shape is 3rd?

5. In 1, 2, 3, 1, 2, 3, what is the 5th number?

Spot the mistake

6. What is wrong? "red, green, blue, red, green. Next is red."

7. What is wrong? "The unit of repeat in red, green, blue, red, green, blue is red, green."

8. What is wrong? "Any row of colours is a pattern."

9. What is wrong? "The 4th thing in a pattern with 3 things in its unit is something new."

Year 1 Maths: Longer, Heavier, Holds More

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. A pencil is 7 paper clips long. A crayon is 4 paper clips long. Which is longer?

2. Which word fits? An elephant is __ than a cat.

3. A bucket holds 12 cups of water. A jug holds 5 cups. Which holds more?

4. Tama is taller than Mia. Who is shorter?

5. On a balance, the apple side goes down and the grape side goes up. Which is lighter?

Spot the mistake

6. What is wrong? "Comparing two pencils without lining up their ends."

7. What is wrong? "Bigger things are always heavier."

8. What is wrong? "Using a small cup for one jug and a big cup for the other."

9. What is wrong? "A tall glass always holds more than a wide bowl."

Year 1 Maths: O'clock, Parts of the Day and Units of Time

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. The long hand points to 12 and the short hand points to 4. What time is it?

2. A digital clock shows 9:00. What time is that?

3. Which unit would you use for how long a clap takes?

4. Today is Tuesday. What day was yesterday?

5. What do we call 12 o'clock in the middle of the day?

Spot the mistake

6. What is wrong? "The short hand shows the minutes."

7. What is wrong? "7:00 means seven minutes."

8. What is wrong? "Midnight is in the middle of the day."

9. What is wrong? "Tomorrow came before today."

Year 1 Maths: Shapes: Faces, Edges, Corners and Building Shapes

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. How many faces does a cube have?

2. How many vertices does a sphere have?

3. Which one rolls: a cube or a cylinder?

4. A triangle is turned upside down. What shape is it now?

5. Two same squares are put side by side. What shape do they make?

Spot the mistake

6. What is wrong? "A square standing on its corner is not a square any more."

7. What is wrong? "A cylinder has corners."

8. What is wrong? "A cube has 6 corners."

9. What is wrong? "A circle and a sphere are the same."

Year 1 Maths: Where Is It? Position Words and Simple Maps

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Your turn

Left	Middle	Right
tree	swing	slide
sandpit	you	bench
gate	path	tap

1. On the map, what is to the right of you?

2. On the map, what is just above you?

3. On the map, what is just below the tree?

4. A bird flies high over a house. Is the bird above or below the house?

5. Is a map drawn from the side or from above?

Spot the mistake

6. What is wrong? "Mixing up left and right."

7. What is wrong? "Behind means under."

8. What is wrong? "A map shows a place from the side."

9. What is wrong? "Inside and on mean the same thing."

Year 1 Maths: Asking Questions and Making Tally Charts

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Practice

1. What number does |||| / ||| show?

2. What number does |||| / |||| show?

3. How do you show 6 in tally marks?

4. Does favourite colour sort into categories?

5. Look at the fruit tally chart. How many children chose banana?

Spot the mistake

6. What is wrong? "Asking the same person twice."

7. What is wrong? "Writing 5 as five straight marks: |||||"

8. What is wrong? "Using lots of categories for a small class."

9. What is wrong? "Data is only numbers."

Year 1 Maths: Picture Graphs: Showing What We Found

Name: _____ Date: _____

Have a go first, then check the answers with a grown-up.

Your turn

Pet	Votes (● = 1 child)
dog	●●●●●●
cat	●●●●
fish	●●
bird	●●●

1. How many children chose cat?

2. Which pet has the most votes?

3. Which pet has the least votes?

4. How many more children chose dog than cat?

5. How many children voted altogether?

Spot the mistake

6. What is wrong? "Drawing some pictures bigger than others."

7. What is wrong? "Rows that start in different places."

8. What is wrong? "The first row always has the most."

9. What is wrong? "Leaving out a category with only one answer."

Answer key (for parents and tutors)

1. How many tens and ones are in 58?
   5 tens and 8 ones
2. What number comes after 39?
   40
3. Count back: 71, 70, __
   69
4. Which is bigger, 45 or 54?
   54
5. Write seventy-three as a number.
   73
6. What is wrong? "Sixteen and sixty are the same number."
   16 is one ten and six ones. 60 is six tens.
7. What is wrong? "Forty-two is written 402."
   Forty-two is 4 tens and 2 ones, so write 42.
8. What is wrong? "After 29 comes 20."
   After 29 comes 30. Nine ones and one more make a new ten.
9. What is wrong? "The 5th child in the line is closer to the front than the 2nd."
   The 2nd child is closer to the front. 2 comes before 5.

Answer key (for parents and tutors)

1. Which position comes after 2nd?
   3rd
2. What is 4 in te reo Māori?
   whā
3. What number is rua tekau mā tahi?
   21
4. A line is labelled 0, 5, 10, 15, 20. Which two labels is 17 between?
   15 and 20
5. What is 30 in te reo Māori?
   toru tekau
6. What is wrong? "Writing second as 2th."
   Second is 2nd. A position ending in 2 uses -nd.
7. What is wrong? "Writing twelfth as 12nd."
   Twelfth is 12th. 11th, 12th and 13th all use -th.
8. What is wrong? "Rua tekau is 12."
   Rua tekau is two tens, 20. Twelve is tekau mā rua.
9. What is wrong? "17 goes just after the 10 on a line labelled in 5s."
   17 goes just after the 15, two hops along.

Answer key (for parents and tutors)

1. Count on in 2s: 14, 16, 18, __
   20
2. Count back in 10s: 75, 65, 55, __
   45
3. There are 9 pairs of socks. How many socks is that?
   18
4. Is 17 odd or even?
   Odd
5. A group has 5 dots and 3 dots. How many dots altogether?
   8
6. What is wrong? "Counting in 2s from 3 gives even numbers."
   3, 5, 7, 9 are odd. Start on an odd number and you stay odd.
7. What is wrong? "Counting in 10s from 23 goes 23, 30, 40."
   The ones stay the same: 23, 33, 43.
8. What is wrong? "12 can only be twelve ones."
   12 is also six pairs, or one ten and two ones.
9. What is wrong? "Counting back in 2s: 40, 39, 38."
   Skip a number each time: 40, 38, 36.

Answer key (for parents and tutors)

1. 7 + 3 = __
   10
2. 9 + 0 = __
   9
3. What is double 4?
   8
4. What is half of 10?
   5
5. 16 – 5 = __
   11
6. What is wrong? "Thinking 5 + 0 = 0."
   5 + 0 = 5. Adding nothing leaves 5.
7. What is wrong? "For 3 + 8, start at 3 and count on 8."
   Start at 8 and count on 3: 9, 10, 11. It is quicker.
8. What is wrong? "Half of 8 is 2."
   Half of 8 is 4, because 4 + 4 = 8.
9. What is wrong? "The number before 20 is 21."
   The number before 20 is 19. 21 comes after.

Answer key (for parents and tutors)

1. 9 + 6 = __
   15
2. 7 + __ = 11
   4
3. 10 + 8 = __
   18
4. How many in 4 groups of 5?
   20
5. Share 14 grapes between 2 children. How many does each child get?
   7
6. What is wrong? "8 – 3 is the same as 3 – 8."
   Order matters when taking away. 8 – 3 = 5, but you cannot take 8 from 3 apples.
7. What is wrong? "3 groups of 4 is 7."
   That is 3 + 4. Three groups of 4 is 4, 8, 12, so 12.
8. What is wrong? "Sharing 12 so one child gets 6 and two get 3 is fair."
   Fair sharing means the same for everyone: 4 each.
9. What is wrong? "7 + __ = 11, so the answer is 18."
   The total is 11. Count on from 7 to 11: the missing number is 4.

Answer key (for parents and tutors)

1. How many equal parts make halves?
   2
2. How many equal parts make quarters?
   4
3. What is half of 10 shells?
   5
4. What is a quarter of 8 apples?
   2
5. A cake is cut into 2 pieces: one big and one small. Are they halves?
   No, the parts are not equal.
6. What is wrong? "Any two pieces are halves."
   Halves must be the same size. One big piece and one small piece are not halves.
7. What is wrong? "A quarter is bigger than a half, because 4 is bigger than 2."
   A quarter is smaller. The whole is cut into more pieces, so each one is smaller.
8. What is wrong? "Half of 8 is 2."
   Half of 8 is 4. Share 8 into 2 equal groups and each has 4.
9. What is wrong? "1/4 means 4 pieces."
   1/4 means 1 piece out of 4 equal pieces.

Answer key (for parents and tutors)

1. Share 12 shells equally between 4 friends. How many does each friend get?
   3
2. What is half of 16?
   8
3. What is a quarter of 16?
   4
4. How many quarters make a half?
   2
5. Halve 20, then halve it again. What do you get?
   5
6. What is wrong? "Sharing 12 as 5, 4 and 3 is fair."
   Fair shares are equal. 12 between 3 is 4 each.
7. What is wrong? "A quarter of 8 is 4."
   4 is half of 8. Halve again for a quarter: 2.
8. What is wrong? "Two quarters are less than a half."
   Two quarters make exactly one half.
9. What is wrong? "To find a quarter, share into 2 groups."
   Share into 4 groups, or halve and then halve again.

Answer key (for parents and tutors)

1. Which is worth more: 50c or $1?
   $1
2. What colour is the $5 note?
   Orange
3. Which coin is worth the least?
   10c
4. How many $1 coins make $2?
   2
5. Is $20 a coin or a note?
   A note
6. What is wrong? "The biggest coin is worth the most."
   The 50c coin is bigger than the $1 coin, but $1 is worth more.
7. What is wrong? "10c is worth more than $1, because 10 is more than 1."
   $1 is 100 cents. 10c is only 10 cents.
8. What is wrong? "$5 is a coin."
   $5 is a note. Our biggest coin is $2.
9. What is wrong? "Two 20c coins make 50c."
   Two 20c coins make 40c. Add a 10c to make 50c.

Answer key (for parents and tutors)

1. 2 + 5 = 3 + __
   4
2. 6 + __ = 9
   3
3. True or false: 7 – 5 = 6 – 4
   True, both sides are 2
4. True or false: 4 + 3 = 8
   False, 4 + 3 = 7
5. 8 – 2 = 4 + __
   2
6. What is wrong? "2 + 5 = 3 + __, so the missing number is 7."
   Both sides must be 7. 3 + 4 = 7, so the missing number is 4.
7. What is wrong? "= means 'the answer comes next'."
   = means both sides are the same amount.
8. What is wrong? "5 = 2 + 3 is wrong, because the answer comes first."
   It is true. Both sides are 5.
9. What is wrong? "3 + 4 = 4 + 3 is false, because the numbers moved."
   It is true. Both sides are 7.

Answer key (for parents and tutors)

1. What comes next? red, green, blue, red, green, __
   Blue
2. What is missing? apple, banana, pear, apple, __, pear
   Banana
3. What is the unit of repeat in clap, stamp, jump, clap, stamp, jump?
   Clap, stamp, jump
4. In circle, square, triangle, circle, square, triangle, which shape is 3rd?
   Triangle
5. In 1, 2, 3, 1, 2, 3, what is the 5th number?
   2
6. What is wrong? "red, green, blue, red, green. Next is red."
   The unit has 3 colours. After green comes blue.
7. What is wrong? "The unit of repeat in red, green, blue, red, green, blue is red, green."
   The unit is red, green, blue. All 3 come before it starts again.
8. What is wrong? "Any row of colours is a pattern."
   A pattern follows a rule. A repeating pattern uses the same unit again and again.
9. What is wrong? "The 4th thing in a pattern with 3 things in its unit is something new."
   The 4th thing starts the unit again, so it matches the 1st.

Answer key (for parents and tutors)

1. A pencil is 7 paper clips long. A crayon is 4 paper clips long. Which is longer?
   The pencil
2. Which word fits? An elephant is __ than a cat.
   Heavier
3. A bucket holds 12 cups of water. A jug holds 5 cups. Which holds more?
   The bucket
4. Tama is taller than Mia. Who is shorter?
   Mia
5. On a balance, the apple side goes down and the grape side goes up. Which is lighter?
   The grape
6. What is wrong? "Comparing two pencils without lining up their ends."
   Start both at the same place, then see which sticks out further.
7. What is wrong? "Bigger things are always heavier."
   A big balloon is lighter than a small rock. Hold them or use a balance.
8. What is wrong? "Using a small cup for one jug and a big cup for the other."
   Use the same cup every time, or the counts do not compare.
9. What is wrong? "A tall glass always holds more than a wide bowl."
   Pour water from one into the other to find out.

Answer key (for parents and tutors)

1. The long hand points to 12 and the short hand points to 4. What time is it?
   4 o'clock
2. A digital clock shows 9:00. What time is that?
   9 o'clock
3. Which unit would you use for how long a clap takes?
   Seconds
4. Today is Tuesday. What day was yesterday?
   Monday
5. What do we call 12 o'clock in the middle of the day?
   Midday, also called noon
6. What is wrong? "The short hand shows the minutes."
   The short hand shows the hour. The long hand shows the minutes.
7. What is wrong? "7:00 means seven minutes."
   7:00 means 7 o'clock.
8. What is wrong? "Midnight is in the middle of the day."
   Midday is in the middle of the day. Midnight is in the middle of the night.
9. What is wrong? "Tomorrow came before today."
   Yesterday came before today. Tomorrow comes after.

Answer key (for parents and tutors)

1. How many faces does a cube have?
   6
2. How many vertices does a sphere have?
   0
3. Which one rolls: a cube or a cylinder?
   The cylinder
4. A triangle is turned upside down. What shape is it now?
   A triangle
5. Two same squares are put side by side. What shape do they make?
   A rectangle
6. What is wrong? "A square standing on its corner is not a square any more."
   It is still a square. Turning a shape does not change it.
7. What is wrong? "A cylinder has corners."
   A cylinder has 2 curved edges and no vertices.
8. What is wrong? "A cube has 6 corners."
   A cube has 6 faces and 8 vertices (corners).
9. What is wrong? "A circle and a sphere are the same."
   A circle is flat (2D). A sphere is a solid ball (3D).

Answer key (for parents and tutors)

1. On the map, what is to the right of you?
   The bench
2. On the map, what is just above you?
   The swing
3. On the map, what is just below the tree?
   The sandpit
4. A bird flies high over a house. Is the bird above or below the house?
   Above
5. Is a map drawn from the side or from above?
   From above
6. What is wrong? "Mixing up left and right."
   Hold up your hands. The one that makes an L is your left.
7. What is wrong? "Behind means under."
   Behind means at the back. Under means below.
8. What is wrong? "A map shows a place from the side."
   A map shows a place from above, like a bird looking down.
9. What is wrong? "Inside and on mean the same thing."
   On is on top. Inside is in the middle, with the box around it.

Answer key (for parents and tutors)

1. What number does |||| / ||| show?
   8
2. What number does |||| / |||| / show?
   10
3. How do you show 6 in tally marks?
   |||| / |
4. Does favourite colour sort into categories?
   Yes, colours sort into groups
5. Look at the fruit tally chart. How many children chose banana?
   3
6. What is wrong? "Asking the same person twice."
   Ask each person once, so every answer counts one time.
7. What is wrong? "Writing 5 as five straight marks: |||||"
   Draw 4 marks, then put the 5th across them: |||| /. It is quicker to count.
8. What is wrong? "Using lots of categories for a small class."
   Keep to a few categories, so each one has enough answers to count.
9. What is wrong? "Data is only numbers."
   Data can be words too, like colours or kinds of fruit.

Answer key (for parents and tutors)

1. How many children chose cat?
   4
2. Which pet has the most votes?
   Dog
3. Which pet has the least votes?
   Fish
4. How many more children chose dog than cat?
   2
5. How many children voted altogether?
   15
6. What is wrong? "Drawing some pictures bigger than others."
   Keep every picture the same size, or a row can look longer than it really is.
7. What is wrong? "Rows that start in different places."
   Start every row at the same line, so you can compare them fairly.
8. What is wrong? "The first row always has the most."
   The longest row has the most. Count to check.
9. What is wrong? "Leaving out a category with only one answer."
   Show every category, even small ones.