

Grade 2 Math Workbook

16 lessons · printable · answer key at the back

Name _____

Date _____

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WORKED EXAMPLE

$$4 + 4 = \underline{8}$$

1. Addition

Work out each sum.

- | | | | |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 1 $0 + 4 = \underline{\quad}$ | 2 $3 + 2 = \underline{\quad}$ | 3 $14 + 2 = \underline{\quad}$ | 4 $8 + 0 = \underline{\quad}$ |
| 5 $0 + 9 = \underline{\quad}$ | 6 $13 + 2 = \underline{\quad}$ | 7 $1 + 13 = \underline{\quad}$ | 8 $5 + 2 = \underline{\quad}$ |
| 9 $14 + 4 = \underline{\quad}$ | 10 $10 + 0 = \underline{\quad}$ | 11 $9 + 3 = \underline{\quad}$ | 12 $11 + 0 = \underline{\quad}$ |
| 13 $13 + 1 = \underline{\quad}$ | 14 $12 + 4 = \underline{\quad}$ | 15 $10 + 4 = \underline{\quad}$ | 16 $1 + 6 = \underline{\quad}$ |
| 17 $1 + 9 = \underline{\quad}$ | 18 $0 + 10 = \underline{\quad}$ | 19 $1 + 7 = \underline{\quad}$ | 20 $11 + 6 = \underline{\quad}$ |
| 21 $11 + 3 = \underline{\quad}$ | 22 $5 + 15 = \underline{\quad}$ | 23 $1 + 4 = \underline{\quad}$ | 24 $10 + 6 = \underline{\quad}$ |
| 25 $2 + 2 = \underline{\quad}$ | 26 $0 + 7 = \underline{\quad}$ | 27 $8 + 3 = \underline{\quad}$ | 28 $2 + 5 = \underline{\quad}$ |
| 29 $2 + 6 = \underline{\quad}$ | | | |

2. Word problems

Read each problem. Write the answer.

- 30 Zoe had 10 pencils before buying 2 more at the library.

How many pencils does Zoe have now?

- 31 First Nina bought 9 pencils, and then 2 more.

How many pencils does Nina have altogether?

Subtracting within 20

WORKED EXAMPLE

$$17 - 5 = \underline{12}$$

3. Subtraction

Work out each difference.

- | | | | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1 $5 - 0 = \underline{\quad}$ | 2 $12 - 11 = \underline{\quad}$ | 3 $15 - 1 = \underline{\quad}$ | 4 $14 - 2 = \underline{\quad}$ |
| 5 $3 - 3 = \underline{\quad}$ | 6 $11 - 5 = \underline{\quad}$ | 7 $7 - 3 = \underline{\quad}$ | 8 $20 - 2 = \underline{\quad}$ |
| 9 $5 - 5 = \underline{\quad}$ | 10 $2 - 0 = \underline{\quad}$ | 11 $15 - 12 = \underline{\quad}$ | 12 $5 - 4 = \underline{\quad}$ |
| 13 $13 - 3 = \underline{\quad}$ | 14 $11 - 3 = \underline{\quad}$ | 15 $4 - 3 = \underline{\quad}$ | 16 $18 - 16 = \underline{\quad}$ |
| 17 $14 - 3 = \underline{\quad}$ | 18 $17 - 3 = \underline{\quad}$ | 19 $4 - 0 = \underline{\quad}$ | 20 $11 - 11 = \underline{\quad}$ |
| 21 $17 - 14 = \underline{\quad}$ | 22 $12 - 12 = \underline{\quad}$ | 23 $13 - 1 = \underline{\quad}$ | 24 $17 - 7 = \underline{\quad}$ |
| 25 $7 - 1 = \underline{\quad}$ | 26 $18 - 0 = \underline{\quad}$ | 27 $6 - 2 = \underline{\quad}$ | 28 $10 - 2 = \underline{\quad}$ |
| 29 $14 - 14 = \underline{\quad}$ | 30 $3 - 1 = \underline{\quad}$ | 31 $12 - 6 = \underline{\quad}$ | 32 $13 - 13 = \underline{\quad}$ |
| 33 $19 - 0 = \underline{\quad}$ | | | |

4. Word problems

Read each problem. Write the answer.

- 34 Ava started with 5 pencils and used 3.

How many pencils does Ava have left?

- 35 Leo had 9 pencils and used 6 of them.

How many pencils does Leo have left?

Adding within 50

WORKED EXAMPLE

$$27 + 11 = \underline{38}$$

5. Addition

Work out each sum.

- | | | | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1 $1 + 24 = \underline{\quad}$ | 2 $2 + 2 = \underline{\quad}$ | 3 $8 + 18 = \underline{\quad}$ | 4 $6 + 7 = \underline{\quad}$ |
| 5 $11 + 3 = \underline{\quad}$ | 6 $13 + 32 = \underline{\quad}$ | 7 $27 + 0 = \underline{\quad}$ | 8 $10 + 39 = \underline{\quad}$ |
| 9 $5 + 2 = \underline{\quad}$ | 10 $16 + 18 = \underline{\quad}$ | 11 $11 + 22 = \underline{\quad}$ | 12 $1 + 3 = \underline{\quad}$ |
| 13 $20 + 14 = \underline{\quad}$ | 14 $10 + 23 = \underline{\quad}$ | 15 $26 + 18 = \underline{\quad}$ | 16 $2 + 27 = \underline{\quad}$ |
| 17 $20 + 15 = \underline{\quad}$ | 18 $5 + 21 = \underline{\quad}$ | 19 $18 + 3 = \underline{\quad}$ | 20 $0 + 39 = \underline{\quad}$ |
| 21 $20 + 30 = \underline{\quad}$ | 22 $15 + 1 = \underline{\quad}$ | 23 $14 + 14 = \underline{\quad}$ | 24 $12 + 18 = \underline{\quad}$ |
| 25 $0 + 16 = \underline{\quad}$ | 26 $3 + 47 = \underline{\quad}$ | 27 $5 + 23 = \underline{\quad}$ | 28 $2 + 35 = \underline{\quad}$ |

6. Word problems

Read each problem. Write the answer.

- 29 First Max bought 11 stickers, and then 4 more.

How many stickers does Max have altogether?

- 30 Max already had 14 cookies and bought 3 more.

How many cookies does Max have in all?

Subtracting within 50

WORKED EXAMPLE

$$12 - 8 = \underline{4}$$

7. Subtraction

Work out each difference.

- | | | | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1 $15 - 13 = \underline{\quad}$ | 2 $30 - 5 = \underline{\quad}$ | 3 $27 - 13 = \underline{\quad}$ | 4 $16 - 8 = \underline{\quad}$ |
| 5 $42 - 8 = \underline{\quad}$ | 6 $8 - 8 = \underline{\quad}$ | 7 $43 - 30 = \underline{\quad}$ | 8 $1 - 0 = \underline{\quad}$ |
| 9 $27 - 11 = \underline{\quad}$ | 10 $39 - 4 = \underline{\quad}$ | 11 $12 - 3 = \underline{\quad}$ | 12 $46 - 9 = \underline{\quad}$ |
| 13 $14 - 14 = \underline{\quad}$ | 14 $42 - 2 = \underline{\quad}$ | 15 $29 - 7 = \underline{\quad}$ | 16 $39 - 35 = \underline{\quad}$ |
| 17 $32 - 32 = \underline{\quad}$ | 18 $48 - 16 = \underline{\quad}$ | 19 $25 - 1 = \underline{\quad}$ | 20 $43 - 32 = \underline{\quad}$ |
| 21 $20 - 16 = \underline{\quad}$ | 22 $28 - 28 = \underline{\quad}$ | 23 $36 - 20 = \underline{\quad}$ | 24 $46 - 4 = \underline{\quad}$ |
| 25 $22 - 9 = \underline{\quad}$ | 26 $2 - 2 = \underline{\quad}$ | 27 $34 - 27 = \underline{\quad}$ | 28 $13 - 5 = \underline{\quad}$ |

8. Word problems

Read each problem. Write the answer.

- 29 Max once had 10 apples but gave away 3.

How many apples are there now?

- 30 Maya started with 13 apples but was left with just 8 apples.

How many apples did Maya give away?

WORKED EXAMPLE

$$31 + 4 = \underline{35}$$

9. Addition

Work out each sum.

- | | | | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1 $53 + 2 = \underline{\quad}$ | 2 $45 + 5 = \underline{\quad}$ | 3 $31 + 17 = \underline{\quad}$ | 4 $1 + 35 = \underline{\quad}$ |
| 5 $2 + 69 = \underline{\quad}$ | 6 $2 + 4 = \underline{\quad}$ | 7 $19 + 33 = \underline{\quad}$ | 8 $26 + 40 = \underline{\quad}$ |
| 9 $44 + 34 = \underline{\quad}$ | 10 $31 + 27 = \underline{\quad}$ | 11 $36 + 47 = \underline{\quad}$ | 12 $30 + 24 = \underline{\quad}$ |
| 13 $65 + 14 = \underline{\quad}$ | 14 $3 + 55 = \underline{\quad}$ | 15 $26 + 12 = \underline{\quad}$ | 16 $72 + 8 = \underline{\quad}$ |
| 17 $57 + 31 = \underline{\quad}$ | | | |

10. Missing numbers

Write the missing number in each one.

- | | | | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 18 $\underline{\quad} + 22 = 46$ | 19 $\underline{\quad} + 22 = 72$ | 20 $1 + \underline{\quad} = 11$ | 21 $\underline{\quad} + 10 = 23$ |
| 22 $\underline{\quad} + 6 = 94$ | 23 $3 + \underline{\quad} = 26$ | 24 $\underline{\quad} + 57 = 64$ | 25 $4 + \underline{\quad} = 56$ |
| 26 $\underline{\quad} + 28 = 62$ | 27 $\underline{\quad} + 30 = 66$ | | |

11. Word problems

Read each problem. Write the answer.

- 28 Maya had 14 cookies before buying 6 more at the corner shop.

How many cookies does Maya have now?

- 29 Leo has 7 pencils while Ava has 4 pencils.

Between the two of them, how many pencils are there?

Subtracting within 100

WORKED EXAMPLE

$$64 - 33 = \underline{31}$$

12. Subtraction

Work out each difference.

1 $6 - 3 = \underline{\quad}$

2 $53 - 29 = \underline{\quad}$

3 $18 - 0 = \underline{\quad}$

4 $57 - 6 = \underline{\quad}$

5 $95 - 34 = \underline{\quad}$

6 $61 - 34 = \underline{\quad}$

7 $34 - 26 = \underline{\quad}$

8 $16 - 12 = \underline{\quad}$

9 $91 - 60 = \underline{\quad}$

10 $92 - 9 = \underline{\quad}$

11 $15 - 1 = \underline{\quad}$

12 $30 - 27 = \underline{\quad}$

13 $61 - 48 = \underline{\quad}$

14 $80 - 72 = \underline{\quad}$

15 $17 - 4 = \underline{\quad}$

16 $55 - 36 = \underline{\quad}$

17 $57 - 50 = \underline{\quad}$

18 $100 - 82 = \underline{\quad}$

19 $34 - 27 = \underline{\quad}$

20 $50 - 38 = \underline{\quad}$

21 $28 - 14 = \underline{\quad}$

22 $95 - 69 = \underline{\quad}$

23 $66 - 49 = \underline{\quad}$

24 $48 - 20 = \underline{\quad}$

25 $53 - 20 = \underline{\quad}$

26 $70 - 16 = \underline{\quad}$

27 $73 - 0 = \underline{\quad}$

28 $38 - 3 = \underline{\quad}$

13. Word problems

Read each problem. Write the answer.

- 29 Ava has 15 pencils; Max has only 14.

How many more pencils does Ava have than Max?

- 30 Leo and Max have 15 cookies in all, and 8 belong to Leo.

How many cookies does Max have?

Column Addition

WORKED EXAMPLE

$$\begin{array}{r} \textcolor{red}{1} \text{ } \textcolor{red}{1} \\ 296 \\ + 505 \\ \hline \textcolor{red}{801} \end{array}$$

14. Add and subtract multi-digit numbers

Add. Work down the columns.

$$\begin{array}{r} 1 \quad 317 \\ + 376 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 735 \\ + 360 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 156 \\ + 599 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 703 \\ + 748 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 363 \\ + 200 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 178 \\ + 945 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \quad 404 \\ + 322 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \quad 541 \\ + 353 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \quad 795 \\ + 425 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \quad 550 \\ + 978 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \quad 535 \\ + 286 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \quad 206 \\ + 792 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \quad 329 \\ + 389 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \quad 755 \\ + 853 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \quad 198 \\ + 434 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \quad 996 \\ + 143 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \quad 935 \\ + 909 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \quad 472 \\ + 141 \\ \hline \end{array}$$

$$\begin{array}{r} 19 \quad 272 \\ + 740 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \quad 556 \\ + 293 \\ \hline \end{array}$$

Column Subtraction

WORKED EXAMPLE

$$\begin{array}{r} \text{4 11} \\ 251 \\ - 144 \\ \hline 107 \end{array}$$

15. Add and subtract multi-digit numbers

Subtract. Work down the columns.

$$\begin{array}{r} 1 \quad 480 \\ - 236 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 827 \\ - 566 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 588 \\ - 174 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 850 \\ - 749 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 591 \\ - 588 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 736 \\ - 392 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \quad 510 \\ - 505 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \quad 989 \\ - 563 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \quad 679 \\ - 262 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \quad 603 \\ - 155 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \quad 454 \\ - 191 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \quad 859 \\ - 647 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \quad 717 \\ - 203 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \quad 624 \\ - 224 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \quad 855 \\ - 636 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \quad 688 \\ - 585 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \quad 383 \\ - 373 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \quad 920 \\ - 655 \\ \hline \end{array}$$

$$\begin{array}{r} 19 \quad 742 \\ - 210 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \quad 621 \\ - 138 \\ \hline \end{array}$$

WORKED EXAMPLE

2, 8, 14, 20, 26**16. Number patterns**

Find the missing number in each pattern.

1 1, __, 17, 25, 33

2 4, 9, 14, __, 24

3 8, 15, __, 29, 36

4 6, __, 24, 33, 42

5 5, 14, __, 32, 41

6 1, 10, __, 28, 37

7 2, 7, __, 17, 22

8 6, 16, __, 36, 46

9 5, 8, 11, __, 17

10 7, 17, __, 37, 47

11 3, 13, __, 33, 43

12 4, 10, 16, __, 28

13 5, 9, __, 17, 21

14 6, 9, 12, __, 18

15 4, __, 18, 25, 32

16 1, 8, __, 22, 29

17 7, __, 21, 28, 35

18 9, __, 23, 30, 37

19 8, 17, __, 35, 44

20 5, 11, 17, __, 29

21 8, 15, 22, __, 36

22 9, 11, __, 15, 17

23 9, 16, 23, __, 37

24 6, __, 10, 12, 14

25 1, 3, 5, __, 9

26 5, 15, 25, __, 45

27 8, 17, 26, __, 44

28 1, 12, 23, __, 45

29 8, __, 30, 41, 52

30 8, 20, __, 44, 56

31 6, 9, __, 15, 18

32 1, 7, 13, __, 25

33 5, 11, __, 23, 29

34 8, 13, 18, __, 28

35 1, 5, __, 13, 17

36 2, 5, __, 11, 14

37 7, 10, 13, __, 19

38 1, __, 5, 7, 9

39 1, 13, __, 37, 49

40 3, 11, __, 27, 35

41 2, 8, 14, __, 26

42 7, 16, 25, __, 43

43 1, 6, 11, __, 21

44 4, 14, 24, __, 44

45 3, 9, 15, __, 27

46 4, __, 14, 19, 24

47 8, __, 28, 38, 48

48 2, __, 22, 32, 42

49 4, 6, 8, __, 12

50 9, 17, 25, __, 41

WORKED EXAMPLE

The sum of two even numbers is even.

always

sometimes

never

Why? **ANSWER:** There is no counter-example — it holds every time.

17. Reasoning puzzles

Read each question and write what you work out.

- 1 Priya wrote $13 + 52 = 66$. Write the correct answer.

Why?

- 2 Which number is the odd one out?

51

8

27

18

Why?

- 3 Mia wrote $47 + 26 = 63$. Write the correct answer.

Why?

- 4 $\blacktriangle + \blacktriangle = 14$ and $\blacksquare - \blacktriangle = 8$. What is $\blacksquare$?

Why?

- 5 Which number is the odd one out?

10

19

15

30

Why?

- 6 Which number is the odd one out?

7

54

39

46

Why?

Telling the Time

WORKED EXAMPLE

$$5:45 \rightarrow 6:45 = \underline{60} \text{ min}$$

18. Elapsed time

Write how many minutes pass between the two times.

1 $2:20 \rightarrow 2:50 = \underline{\hspace{1cm}}$
min

2 $1:20 \rightarrow 2:10 = \underline{\hspace{1cm}}$
min

3 $4:25 \rightarrow 4:45 = \underline{\hspace{1cm}}$
min

4 $8:15 \rightarrow 9:35 = \underline{\hspace{1cm}}$
min

5 $3:20 \rightarrow 4:15 = \underline{\hspace{1cm}}$
min

6 $5:30 \rightarrow 5:40 = \underline{\hspace{1cm}}$
min

7 $7:40 \rightarrow 8:55 = \underline{\hspace{1cm}}$
min

8 $6:35 \rightarrow 7:00 = \underline{\hspace{1cm}}$
min

9 $7:45 \rightarrow 8:00 = \underline{\hspace{1cm}}$
min

10 $7:55 \rightarrow 9:10 = \underline{\hspace{1cm}}$
min

11 $11:35 \rightarrow 12:15 = \underline{\hspace{1cm}}$
min

12 $7:30 \rightarrow 7:55 = \underline{\hspace{1cm}}$
min

13 $5:50 \rightarrow 7:05 = \underline{\hspace{1cm}}$
min

14 $10:30 \rightarrow 11:10 = \underline{\hspace{1cm}}$
min

15 $9:45 \rightarrow 11:05 = \underline{\hspace{1cm}}$
min

16 $1:55 \rightarrow 2:10 = \underline{\hspace{1cm}}$
min

17 $2:35 \rightarrow 4:00 = \underline{\hspace{1cm}}$
min

18 $8:15 \rightarrow 9:05 = \underline{\hspace{1cm}}$
min

19 $6:05 \rightarrow 6:15 = \underline{\hspace{1cm}}$
min

20 $7:45 \rightarrow 9:10 = \underline{\hspace{1cm}}$
min

21 $1:15 \rightarrow 2:00 = \underline{\hspace{1cm}}$
min

22 $3:30 \rightarrow 4:55 = \underline{\hspace{1cm}}$
min

23 $3:50 \rightarrow 4:10 = \underline{\hspace{1cm}}$
min

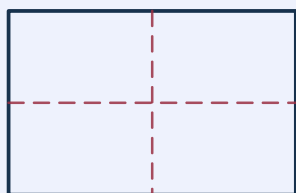
24 $12:25 \rightarrow 1:50 = \underline{\hspace{1cm}}$
min

25 $1:25 \rightarrow 2:25 = \underline{\hspace{1cm}}$
min

26 $8:00 \rightarrow 8:25 = \underline{\hspace{1cm}}$
min

Naming Shapes

WORKED EXAMPLE



rectangle

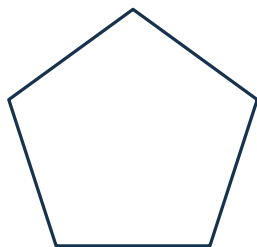
square

triangle

19. Name the shape

Circle the name of each shape.

1

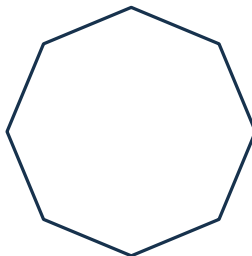


octagon

pentagon

square

2

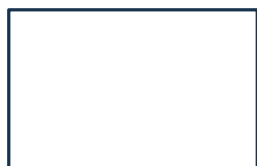


hexagon

octagon

square

3

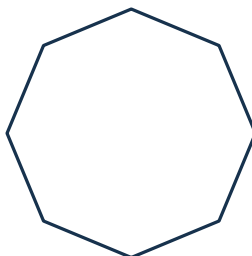


hexagon

pentagon

rectangle

4

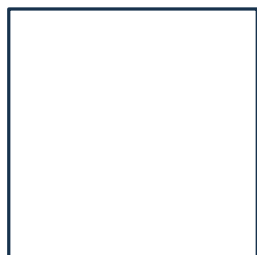


octagon

rectangle

triangle

5

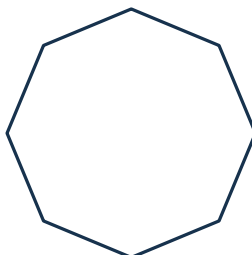


hexagon

square

triangle

6



octagon

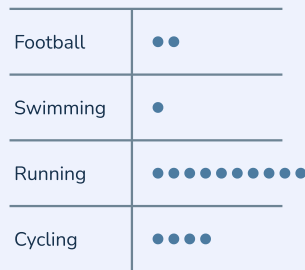
pentagon

triangle

Picture Graphs and Bar Graphs

WORKED EXAMPLE

Our favorite sport



Each ● stands for 1.

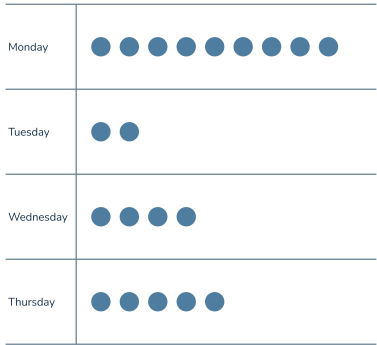
How many more chose running than chose football?

ANSWER: 8

20. Picture graphs

Read each picture graph and answer the question.

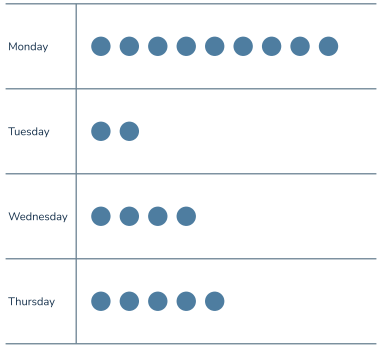
1 **Shells found on the beach**



Each ● stands for 1.

Which has the fewest?

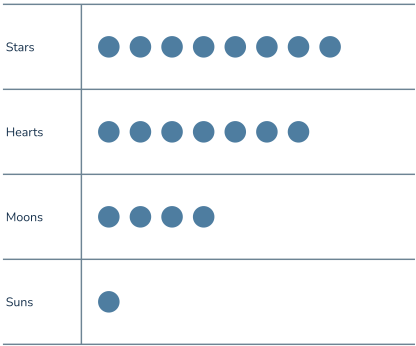
2 **Shells found on the beach**



Each ● stands for 1.

How many altogether?

3 **Stickers in each packet**



Each ● stands for 1.

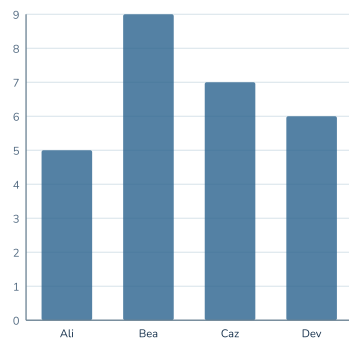
How many fewer hearts than stars?

21. Bar graphs

Read each bar graph and answer the question.

4

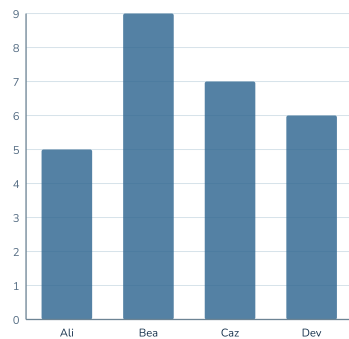
Books read this term



Which has the most?

5

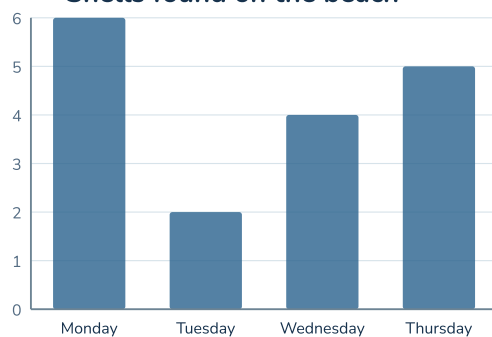
Books read this term



Which has the fewest?

6

Shells found on the beach



How many fewer on Tuesday than on Monday?

Word Problems

WORKED EXAMPLE

Maya had 15 apples near the library and then bought 9 more.

How many apples does Maya have altogether?

ANSWER: $15 + 9 = 24$ apples

22. Word problems

Read each problem. Write the answer.

- 1 Max had 14 apples before buying 6 more at the park.

How many apples does Max have now?

- 2 Ava has 10 apples while Zoe has 8 apples.

Between the two of them, how many apples are there?

- 3 Ava keeps 18 apples and Maya keeps 4.

How many apples do they have altogether?

- 4 Max and Maya have some stickers — 12 belong to Max and 5 to Maya.

How many stickers do the two of them have in total?

Review: Facts within 20

WORKED EXAMPLE

$$3 + 7 = \underline{10}$$

23. Addition

Work out each sum.

1 $6 + 7 = \underline{\quad}$

2 $0 + 5 = \underline{\quad}$

3 $11 + 9 = \underline{\quad}$

4 $11 + 4 = \underline{\quad}$

5 $2 + 17 = \underline{\quad}$

6 $0 + 13 = \underline{\quad}$

7 $14 + 2 = \underline{\quad}$

8 $6 + 8 = \underline{\quad}$

9 $9 + 9 = \underline{\quad}$

10 $9 + 3 = \underline{\quad}$

11 $17 + 3 = \underline{\quad}$

12 $11 + 2 = \underline{\quad}$

24. Subtraction

Work out each difference.

13 $17 - 7 = \underline{\quad}$

14 $6 - 5 = \underline{\quad}$

15 $18 - 9 = \underline{\quad}$

16 $10 - 4 = \underline{\quad}$

17 $20 - 19 = \underline{\quad}$

18 $5 - 4 = \underline{\quad}$

19 $12 - 5 = \underline{\quad}$

20 $18 - 15 = \underline{\quad}$

21 $18 - 16 = \underline{\quad}$

22 $11 - 4 = \underline{\quad}$

23 $18 - 4 = \underline{\quad}$

24 $12 - 10 = \underline{\quad}$

Review: Two-Digit Numbers

WORKED EXAMPLE

$$44 + 14 = \underline{58}$$

25. Addition

Work out each sum.

1 $33 + 29 = \underline{\quad}$

4 $48 + 40 = \underline{\quad}$

7 $0 + 92 = \underline{\quad}$

10 $12 + 72 = \underline{\quad}$

13 $10 + 81 = \underline{\quad}$

16 $37 + 34 = \underline{\quad}$

19 $47 + 13 = \underline{\quad}$

22 $41 + 46 = \underline{\quad}$

25 $3 + 50 = \underline{\quad}$

2 $30 + 11 = \underline{\quad}$

5 $18 + 56 = \underline{\quad}$

8 $1 + 42 = \underline{\quad}$

11 $64 + 27 = \underline{\quad}$

14 $29 + 62 = \underline{\quad}$

17 $58 + 7 = \underline{\quad}$

20 $9 + 84 = \underline{\quad}$

23 $52 + 48 = \underline{\quad}$

26 $78 + 11 = \underline{\quad}$

3 $57 + 35 = \underline{\quad}$

6 $12 + 56 = \underline{\quad}$

9 $91 + 5 = \underline{\quad}$

12 $9 + 69 = \underline{\quad}$

15 $16 + 50 = \underline{\quad}$

18 $14 + 82 = \underline{\quad}$

21 $67 + 25 = \underline{\quad}$

24 $8 + 85 = \underline{\quad}$

27 $32 + 68 = \underline{\quad}$

26. Subtraction

Work out each difference.

28 $77 - 61 = \underline{\quad}$

31 $84 - 32 = \underline{\quad}$

34 $100 - 19 = \underline{\quad}$

37 $52 - 48 = \underline{\quad}$

40 $81 - 21 = \underline{\quad}$

43 $90 - 89 = \underline{\quad}$

46 $61 - 47 = \underline{\quad}$

49 $77 - 6 = \underline{\quad}$

52 $35 - 18 = \underline{\quad}$

29 $21 - 2 = \underline{\quad}$

32 $93 - 57 = \underline{\quad}$

35 $36 - 3 = \underline{\quad}$

38 $98 - 76 = \underline{\quad}$

41 $95 - 74 = \underline{\quad}$

44 $78 - 72 = \underline{\quad}$

47 $70 - 17 = \underline{\quad}$

50 $93 - 68 = \underline{\quad}$

53 $89 - 54 = \underline{\quad}$

30 $96 - 21 = \underline{\quad}$

33 $78 - 34 = \underline{\quad}$

36 $93 - 63 = \underline{\quad}$

39 $100 - 55 = \underline{\quad}$

42 $9 - 2 = \underline{\quad}$

45 $95 - 5 = \underline{\quad}$

48 $97 - 27 = \underline{\quad}$

51 $96 - 27 = \underline{\quad}$

54 $100 - 0 = \underline{\quad}$

Answer Key (1 of 6)

Adding within 20

Addition

1. $0 + 4 = 4$
2. $3 + 2 = 5$
3. $14 + 2 = 16$
4. $8 + 0 = 8$
5. $0 + 9 = 9$
6. $13 + 2 = 15$
7. $1 + 13 = 14$
8. $5 + 2 = 7$
9. $14 + 4 = 18$
10. $10 + 0 = 10$
11. $9 + 3 = 12$
12. $11 + 0 = 11$
13. $13 + 1 = 14$
14. $12 + 4 = 16$
15. $10 + 4 = 14$
16. $1 + 6 = 7$
17. $1 + 9 = 10$
18. $0 + 10 = 10$
19. $1 + 7 = 8$
20. $11 + 6 = 17$
21. $11 + 3 = 14$
22. $5 + 15 = 20$
23. $1 + 4 = 5$
24. $10 + 6 = 16$
25. $2 + 2 = 4$
26. $0 + 7 = 7$
27. $8 + 3 = 11$
28. $2 + 5 = 7$
29. $2 + 6 = 8$

Word problems

30. $10 + 2 = 12$ pencils
31. $9 + 2 = 11$ pencils

Subtracting within 20

Subtraction

1. $5 - 0 = 5$
2. $12 - 11 = 1$
3. $15 - 1 = 14$
4. $14 - 2 = 12$
5. $3 - 3 = 0$
6. $11 - 5 = 6$

Subtracting within 20 (continued)

Subtraction (continued)

7. $7 - 3 = 4$
8. $20 - 2 = 18$
9. $5 - 5 = 0$
10. $2 - 0 = 2$
11. $15 - 12 = 3$
12. $5 - 4 = 1$
13. $13 - 3 = 10$
14. $11 - 3 = 8$
15. $4 - 3 = 1$
16. $18 - 16 = 2$
17. $14 - 3 = 11$
18. $17 - 3 = 14$
19. $4 - 0 = 4$
20. $11 - 11 = 0$
21. $17 - 14 = 3$
22. $12 - 12 = 0$
23. $13 - 1 = 12$
24. $17 - 7 = 10$
25. $7 - 1 = 6$
26. $18 - 0 = 18$
27. $6 - 2 = 4$
28. $10 - 2 = 8$
29. $14 - 14 = 0$
30. $3 - 1 = 2$
31. $12 - 6 = 6$
32. $13 - 13 = 0$
33. $19 - 0 = 19$

Word problems

34. $5 - 3 = 2$ pencils
35. $9 - 6 = 3$ pencils

Adding within 50

Addition

1. $1 + 24 = 25$
2. $2 + 2 = 4$
3. $8 + 18 = 26$
4. $6 + 7 = 13$
5. $11 + 3 = 14$
6. $13 + 32 = 45$
7. $27 + 0 = 27$
8. $10 + 39 = 49$

Answer Key (2 of 6)

Adding within 50 (continued)

Addition (continued)

9. $5 + 2 = 7$
10. $16 + 18 = 34$
11. $11 + 22 = 33$
12. $1 + 3 = 4$
13. $20 + 14 = 34$
14. $10 + 23 = 33$
15. $26 + 18 = 44$
16. $2 + 27 = 29$
17. $20 + 15 = 35$
18. $5 + 21 = 26$
19. $18 + 3 = 21$
20. $0 + 39 = 39$
21. $20 + 30 = 50$
22. $15 + 1 = 16$
23. $14 + 14 = 28$
24. $12 + 18 = 30$
25. $0 + 16 = 16$
26. $3 + 47 = 50$
27. $5 + 23 = 28$
28. $2 + 35 = 37$

Word problems

29. $11 + 4 = 15$ stickers
30. $14 + 3 = 17$ cookies

Subtracting within 50

Subtraction

1. $15 - 13 = 2$
2. $30 - 5 = 25$
3. $27 - 13 = 14$
4. $16 - 8 = 8$
5. $42 - 8 = 34$
6. $8 - 8 = 0$
7. $43 - 30 = 13$
8. $1 - 0 = 1$
9. $27 - 11 = 16$
10. $39 - 4 = 35$
11. $12 - 3 = 9$
12. $46 - 9 = 37$
13. $14 - 14 = 0$
14. $42 - 2 = 40$
15. $29 - 7 = 22$

Subtracting within 50 (continued)

Subtraction (continued)

16. $39 - 35 = 4$
17. $32 - 32 = 0$
18. $48 - 16 = 32$
19. $25 - 1 = 24$
20. $43 - 32 = 11$
21. $20 - 16 = 4$
22. $28 - 28 = 0$
23. $36 - 20 = 16$
24. $46 - 4 = 42$
25. $22 - 9 = 13$
26. $2 - 2 = 0$
27. $34 - 27 = 7$
28. $13 - 5 = 8$

Word problems

29. $10 - 3 = 7$ apples
30. $13 - 8 = 5$ apples

Adding within 100

Addition

1. $53 + 2 = 55$
2. $45 + 5 = 50$
3. $31 + 17 = 48$
4. $1 + 35 = 36$
5. $2 + 69 = 71$
6. $2 + 4 = 6$
7. $19 + 33 = 52$
8. $26 + 40 = 66$
9. $44 + 34 = 78$
10. $31 + 27 = 58$
11. $36 + 47 = 83$
12. $30 + 24 = 54$
13. $65 + 14 = 79$
14. $3 + 55 = 58$
15. $26 + 12 = 38$
16. $72 + 8 = 80$
17. $57 + 31 = 88$

Missing numbers

18. $24 + 22 = 46$
19. $50 + 22 = 72$
20. $1 + 10 = 11$
21. $13 + 10 = 23$

Answer Key (3 of 6)

Adding within 100 (continued)

Missing numbers (continued)

- 22. $88 + 6 = 94$
- 23. $3 + 23 = 26$
- 24. $7 + 57 = 64$
- 25. $4 + 52 = 56$
- 26. $34 + 28 = 62$
- 27. $36 + 30 = 66$

Word problems

- 28. $14 + 6 = 20$ cookies
- 29. $7 + 4 = 11$ pencils

Subtracting within 100

Subtraction

- 1. $6 - 3 = 3$
- 2. $53 - 29 = 24$
- 3. $18 - 0 = 18$
- 4. $57 - 6 = 51$
- 5. $95 - 34 = 61$
- 6. $61 - 34 = 27$
- 7. $34 - 26 = 8$
- 8. $16 - 12 = 4$
- 9. $91 - 60 = 31$
- 10. $92 - 9 = 83$
- 11. $15 - 1 = 14$
- 12. $30 - 27 = 3$
- 13. $61 - 48 = 13$
- 14. $80 - 72 = 8$
- 15. $17 - 4 = 13$
- 16. $55 - 36 = 19$
- 17. $57 - 50 = 7$
- 18. $100 - 82 = 18$
- 19. $34 - 27 = 7$
- 20. $50 - 38 = 12$
- 21. $28 - 14 = 14$
- 22. $95 - 69 = 26$
- 23. $66 - 49 = 17$
- 24. $48 - 20 = 28$
- 25. $53 - 20 = 33$
- 26. $70 - 16 = 54$
- 27. $73 - 0 = 73$
- 28. $38 - 3 = 35$

Subtracting within 100 (continued)

Word problems

- 29. $15 - 14 = 1$ pencil
- 30. $15 - 8 = 7$ cookies

Column Addition

Add and subtract multi-digit numbers

- 1. $317 + 376 = 693$
- 2. $735 + 360 = 1095$
- 3. $156 + 599 = 755$
- 4. $703 + 748 = 1451$
- 5. $363 + 200 = 563$
- 6. $178 + 945 = 1123$
- 7. $404 + 322 = 726$
- 8. $541 + 353 = 894$
- 9. $795 + 425 = 1220$
- 10. $550 + 978 = 1528$
- 11. $535 + 286 = 821$
- 12. $206 + 792 = 998$
- 13. $329 + 389 = 718$
- 14. $755 + 853 = 1608$
- 15. $198 + 434 = 632$
- 16. $996 + 143 = 1139$
- 17. $935 + 909 = 1844$
- 18. $472 + 141 = 613$
- 19. $272 + 740 = 1012$
- 20. $556 + 293 = 849$

Column Subtraction

Add and subtract multi-digit numbers

- 1. $480 - 236 = 244$
- 2. $827 - 566 = 261$
- 3. $588 - 174 = 414$
- 4. $850 - 749 = 101$
- 5. $591 - 588 = 3$
- 6. $736 - 392 = 344$
- 7. $510 - 505 = 5$
- 8. $989 - 563 = 426$
- 9. $679 - 262 = 417$
- 10. $603 - 155 = 448$
- 11. $454 - 191 = 263$
- 12. $859 - 647 = 212$
- 13. $717 - 203 = 514$

Answer Key (4 of 6)

Column Subtraction (continued)

Add and subtract multi-digit numbers (continued)

14. $624 - 224 = 400$
15. $855 - 636 = 219$
16. $688 - 585 = 103$
17. $383 - 373 = 10$
18. $920 - 655 = 265$
19. $742 - 210 = 532$
20. $621 - 138 = 483$

Number Patterns

Number patterns

1. 1, [9], 17, 25, 33
2. 4, 9, 14, [19], 24
3. 8, 15, [22], 29, 36
4. 6, [15], 24, 33, 42
5. 5, 14, [23], 32, 41
6. 1, 10, [19], 28, 37
7. 2, 7, [12], 17, 22
8. 6, 16, [26], 36, 46
9. 5, 8, 11, [14], 17
10. 7, 17, [27], 37, 47
11. 3, 13, [23], 33, 43
12. 4, 10, 16, [22], 28
13. 5, 9, [13], 17, 21
14. 6, 9, 12, [15], 18
15. 4, [11], 18, 25, 32
16. 1, 8, [15], 22, 29
17. 7, [14], 21, 28, 35
18. 9, [16], 23, 30, 37
19. 8, 17, [26], 35, 44
20. 5, 11, 17, [23], 29
21. 8, 15, 22, [29], 36
22. 9, 11, [13], 15, 17
23. 9, 16, 23, [30], 37
24. 6, [8], 10, 12, 14
25. 1, 3, 5, [7], 9
26. 5, 15, 25, [35], 45
27. 8, 17, 26, [35], 44
28. 1, 12, 23, [34], 45
29. 8, [19], 30, 41, 52
30. 8, 20, [32], 44, 56
31. 6, 9, [12], 15, 18

Number Patterns (continued)

Number patterns (continued)

32. 1, 7, 13, [19], 25
33. 5, 11, [17], 23, 29
34. 8, 13, 18, [23], 28
35. 1, 5, [9], 13, 17
36. 2, 5, [8], 11, 14
37. 7, 10, 13, [16], 19
38. 1, [3], 5, 7, 9
39. 1, 13, [25], 37, 49
40. 3, 11, [19], 27, 35
41. 2, 8, 14, [20], 26
42. 7, 16, 25, [34], 43
43. 1, 6, 11, [16], 21
44. 4, 14, 24, [34], 44
45. 3, 9, 15, [21], 27
46. 4, [9], 14, 19, 24
47. 8, [18], 28, 38, 48
48. 2, [12], 22, 32, 42
49. 4, 6, 8, [10], 12
50. 9, 17, 25, [33], 41

True, False or Fix It

Reasoning puzzles

1. $13 + 52 = 65$, not 66 (the answer is one out)
2. 51, 8, 27, 18 $\rightarrow$ 8 (the other three are all multiples of 3)
3. $47 + 26 = 73$, not 63 (a ten was not carried)
4. $\blacktriangle = 7$, $\blacksquare = 15$
5. 10, 19, 15, 30 $\rightarrow$ 19 (the other three are all multiples of 5)
6. 7, 54, 39, 46 $\rightarrow$ 7 (the other three are all two-digit numbers)

Telling the Time

Elapsed time

1. 2:20 $\rightarrow$ 2:50 = 30 min
2. 1:20 $\rightarrow$ 2:10 = 50 min
3. 4:25 $\rightarrow$ 4:45 = 20 min
4. 8:15 $\rightarrow$ 9:35 = 80 min
5. 3:20 $\rightarrow$ 4:15 = 55 min
6. 5:30 $\rightarrow$ 5:40 = 10 min
7. 7:40 $\rightarrow$ 8:55 = 75 min
8. 6:35 $\rightarrow$ 7:00 = 25 min

Answer Key (5 of 6)

Telling the Time (continued)

Elapsed time (continued)

9. $7:45 \rightarrow 8:00 = 15 \text{ min}$
10. $7:55 \rightarrow 9:10 = 75 \text{ min}$
11. $11:35 \rightarrow 12:15 = 40 \text{ min}$
12. $7:30 \rightarrow 7:55 = 25 \text{ min}$
13. $5:50 \rightarrow 7:05 = 75 \text{ min}$
14. $10:30 \rightarrow 11:10 = 40 \text{ min}$
15. $9:45 \rightarrow 11:05 = 80 \text{ min}$
16. $1:55 \rightarrow 2:10 = 15 \text{ min}$
17. $2:35 \rightarrow 4:00 = 85 \text{ min}$
18. $8:15 \rightarrow 9:05 = 50 \text{ min}$
19. $6:05 \rightarrow 6:15 = 10 \text{ min}$
20. $7:45 \rightarrow 9:10 = 85 \text{ min}$
21. $1:15 \rightarrow 2:00 = 45 \text{ min}$
22. $3:30 \rightarrow 4:55 = 85 \text{ min}$
23. $3:50 \rightarrow 4:10 = 20 \text{ min}$
24. $12:25 \rightarrow 1:50 = 85 \text{ min}$
25. $1:25 \rightarrow 2:25 = 60 \text{ min}$
26. $8:00 \rightarrow 8:25 = 25 \text{ min}$

Naming Shapes

Name the shape

1. pentagon — from octagon, pentagon, square
2. octagon — from hexagon, octagon, square
3. rectangle — from hexagon, pentagon, rectangle
4. octagon — from octagon, rectangle, triangle
5. square — from hexagon, square, triangle
6. octagon — from octagon, pentagon, triangle

Picture Graphs and Bar Graphs

Picture graphs

1. Tuesday (2)
2. $9 + 2 + 4 + 5 = 20$
3. Hearts is $8 - 7 = 1$ fewer than Stars

Bar graphs

4. Bea (9)
5. Ali (5)
6. Tuesday is $6 - 2 = 4$ fewer than Monday

Word Problems

Word problems

1. $14 + 6 = 20$ apples

Word Problems (continued)

Word problems (continued)

2. $10 + 8 = 18$ apples
3. $18 + 4 = 22$ apples
4. $12 + 5 = 17$ stickers

Review: Facts within 20

Addition

1. $6 + 7 = 13$
2. $0 + 5 = 5$
3. $11 + 9 = 20$
4. $11 + 4 = 15$
5. $2 + 17 = 19$
6. $0 + 13 = 13$
7. $14 + 2 = 16$
8. $6 + 8 = 14$
9. $9 + 9 = 18$
10. $9 + 3 = 12$
11. $17 + 3 = 20$
12. $11 + 2 = 13$

Subtraction

13. $17 - 7 = 10$
14. $6 - 5 = 1$
15. $18 - 9 = 9$
16. $10 - 4 = 6$
17. $20 - 19 = 1$
18. $5 - 4 = 1$
19. $12 - 5 = 7$
20. $18 - 15 = 3$
21. $18 - 16 = 2$
22. $11 - 4 = 7$
23. $18 - 4 = 14$
24. $12 - 10 = 2$

Review: Two-Digit Numbers

Addition

1. $33 + 29 = 62$
2. $30 + 11 = 41$
3. $57 + 35 = 92$
4. $48 + 40 = 88$
5. $18 + 56 = 74$
6. $12 + 56 = 68$
7. $0 + 92 = 92$

Answer Key (6 of 6)

Review: Two-Digit Numbers (continued)

Addition (continued)

8. $1 + 42 = 43$
9. $91 + 5 = 96$
10. $12 + 72 = 84$
11. $64 + 27 = 91$
12. $9 + 69 = 78$
13. $10 + 81 = 91$
14. $29 + 62 = 91$
15. $16 + 50 = 66$
16. $37 + 34 = 71$
17. $58 + 7 = 65$
18. $14 + 82 = 96$
19. $47 + 13 = 60$
20. $9 + 84 = 93$
21. $67 + 25 = 92$
22. $41 + 46 = 87$
23. $52 + 48 = 100$
24. $8 + 85 = 93$
25. $3 + 50 = 53$
26. $78 + 11 = 89$
27. $32 + 68 = 100$

Subtraction

28. $77 - 61 = 16$
29. $21 - 2 = 19$
30. $96 - 21 = 75$
31. $84 - 32 = 52$
32. $93 - 57 = 36$
33. $78 - 34 = 44$
34. $100 - 19 = 81$
35. $36 - 3 = 33$
36. $93 - 63 = 30$
37. $52 - 48 = 4$
38. $98 - 76 = 22$
39. $100 - 55 = 45$
40. $81 - 21 = 60$
41. $95 - 74 = 21$
42. $9 - 2 = 7$
43. $90 - 89 = 1$
44. $78 - 72 = 6$
45. $95 - 5 = 90$

Review: Two-Digit Numbers (continued)

Subtraction (continued)

46. $61 - 47 = 14$
47. $70 - 17 = 53$
48. $97 - 27 = 70$
49. $77 - 6 = 71$
50. $93 - 68 = 25$
51. $96 - 27 = 69$
52. $35 - 18 = 17$
53. $89 - 54 = 35$
54. $100 - 0 = 100$

Solutions (1 of 8)

Adding within 20

Word problems

30. Zoe had 10 pencils before buying 2 more at the library.

How many pencils does Zoe have now? ____

asked:

How many pencils does Zoe have
now?

$$10 + 2 = 12$$

12 pencils

Read it through once and do NOTHING.

Grabbing the numbers on the first read means choosing an operation before you know the story, and that choice is the only hard part of a word problem.

Now the numbers: 10 and 2. Finding them is not the same as knowing what to do with them — that comes next, and it comes from the story rather than from the numbers.

Amounts are joining together. So this one is an addition: $10 + 2$.

$10 + 2 = 12$ pencils. And answer the question that was ASKED — "How many pencils does Zoe have now?" — in pencils, because the sum on its own is not yet an answer.

31. First Nina bought 9 pencils, and then 2 more.

How many pencils does Nina have altogether? ____

asked:

How many pencils does Nina have
altogether?

$$9 + 2 = 11$$

11 pencils

Read it through once and do NOTHING.

Grabbing the numbers on the first read means choosing an operation before you know the story, and that choice is the only hard part of a word problem.

Now the numbers: 9 and 2. Finding them is not the same as knowing what to do with them — that comes next, and it comes from the story rather than from the numbers.

Amounts are joining together. So this one is an addition: $9 + 2$.

$9 + 2 = 11$ pencils. And answer the question that was ASKED — "How many pencils does Nina have altogether?" — in pencils, because the sum on its own is not yet an answer.

Solutions (2 of 8)

Column Addition

Add and subtract multi-digit numbers

1.

$$\begin{array}{r} 1 \\ 317 \\ + 376 \\ \hline 693 \end{array}$$

317 + 376, written in columns. Start at the RIGHT, with the ones.

7 plus 6 makes 13. That is more than 9, so write 3 in the ones and carry 1 to the left.

Add the carried 1 as well: 1 + 1 + 7 makes 9. Write 9 in the tens.

3 plus 3 makes 6. Write 6 in the hundreds. That is the whole sum: $317 + 376 = 693$.

2.

$$\begin{array}{r} 1 \\ 735 \\ + 360 \\ \hline 1095 \end{array}$$

735 + 360, written in columns. Start at the RIGHT, with the ones.

5 plus 0 makes 5. Write 5 in the ones.

3 plus 6 makes 9. Write 9 in the tens.

7 plus 3 makes 10. That is more than 9, so write 0 in the hundreds and carry 1 to the left.

Nothing is left to add in the thousands, but a 1 was carried in — so the thousands is 1.

That is the whole sum: $735 + 360 = 1095$.

Number Patterns

Number patterns

1. 1, ____, 17, 25, 33

1 9 17 25 33

Find the rule first, from two numbers you can actually see — never from the gap.

17 to 25 is + 8. One pair is a guess, though — check it against another.

$25 + 8 = 33$, so the rule holds. Two pairs agreeing is what turns a guess into the rule.

Now apply it to the gap: $1 + 8 = 9$.

Check it against the number already after the gap: $9 + 8 = 17$, which is what is there. The missing number is 9.

Solutions (3 of 8)

Number Patterns (continued)

Number patterns (continued)

2. 4, 9, 14, ____, 24

4 9 14 19 24

Find the rule first, from two numbers you can actually see — never from the gap.

4 to 9 is + 5. One pair is a guess, though — check it against another.

$9 + 5 = 14$, so the rule holds. Two pairs agreeing is what turns a guess into the rule.

Now apply it to the gap: $14 + 5 = 19$.

Check it against the number already after the gap: $19 + 5 = 24$, which is what is there. The missing number is 19.

True, False or Fix It

Reasoning puzzles

1. Priya wrote $13 + 52 = 66$. Write the correct answer. ____

Why?

13 + 52 = 65

they wrote: 66

Do not check by reading their working.

Somebody else's answer is the most persuasive thing on the page, and rereading it is how you end up agreeing with it — work the sum yourself first, then compare.

On your own: $13 + 52 = 65$.

Now compare. They wrote 66, and it should be 65 — out by 1. The correct answer is 65.

Solutions (4 of 8)

True, False or Fix It (continued)

Reasoning puzzles (continued)

2. Which number is the odd one out?

51

8

27

18

Why?

51 8 27 18
8

Do not hunt for the odd one — hunt for what the OTHERS share. Testing each candidate on its own is testing it against nothing, and that is guessing with extra steps.

Look for a property three of them have: 51, 27, 18 — they are all multiples of 3.

8 is the one that does not, so it is the odd one out. And being able to SAY the shared property is what makes it an answer rather than a guess.

Telling the Time

Elapsed time

1. 2:20 → 2:50 = ____ min



From 2:20 to 2:50. Count FORWARDS rather than taking one from the other — then nothing has to be borrowed and the hour never bites.

It all sits inside the one hour, so there is nothing to cross: 30 minutes straight through to 2:50.

Add the hops up: 30 — that is 30 minutes.

2. 1:20 → 2:10 = ____ min



From 1:20 to 2:10. Count FORWARDS rather than taking one from the other — then nothing has to be borrowed and the hour never bites.

First hop: up to the next o'clock. 1:20 to 2:00 is 40 minutes.

Then the last 10 minutes to reach 2:10.

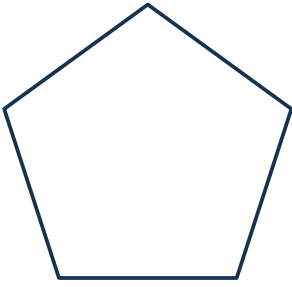
Add the hops up: 40 + 10 — that is 50 minutes.

Solutions (5 of 8)

Naming Shapes

Name the shape

1.



octagon

pentagon

square

sides: 5

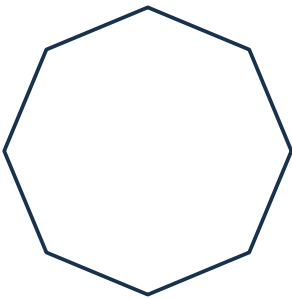
pentagon

Count the sides first — that is what almost every shape name is built from, and it is one number rather than a picture to recognize.

5 sides makes it a pentagon.

So it is a pentagon.

2.



hexagon

octagon

square

sides: 8

octagon

Count the sides first — that is what almost every shape name is built from, and it is one number rather than a picture to recognize.

8 sides makes it an octagon.

So it is an octagon.

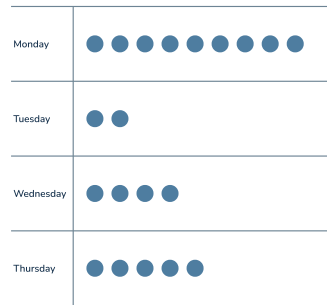
Solutions (6 of 8)

Picture Graphs and Bar Graphs

Picture graphs

1.

Shells found on the beach



Each ● stands for 1.

Which has the fewest?

Monday: 9 drawn → 9 shells
Tuesday: 2 drawn → 2 shells
Wednesday: 4 drawn → 4 shells
Thursday: 5 drawn → 5 shells

Tuesday

Check the key first, every time. Here one picture is one shell, so counting is enough — but that is a fact to check, not to assume.

So the counts read straight off: Monday 9, Tuesday 2, Wednesday 4, Thursday 5.

Now the question, on the NUMBERS rather than the marks: Tuesday (2). So the answer is Tuesday.

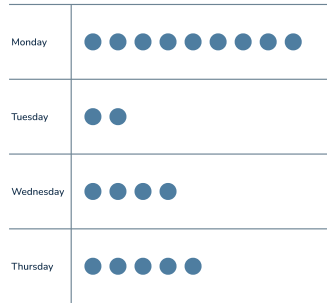
Solutions (7 of 8)

Picture Graphs and Bar Graphs (continued)

Picture graphs (continued)

2.

Shells found on the beach



Each ● stands for 1.

How many altogether?

Monday: 9 drawn → 9 shells
Tuesday: 2 drawn → 2 shells
Wednesday: 4 drawn → 4 shells
Thursday: 5 drawn → 5 shells

20 shells

Check the key first, every time. Here one picture is one shell, so counting is enough — but that is a fact to check, not to assume.

So the counts read straight off: Monday 9, Tuesday 2, Wednesday 4, Thursday 5.

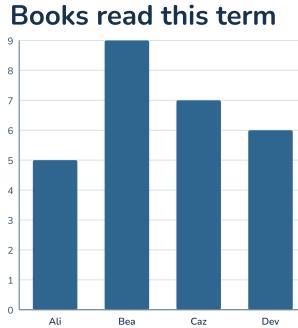
Now the question, on the NUMBERS rather than the marks: $9 + 2 + 4 + 5 = 20$. So the answer is 20 shells.

Solutions (8 of 8)

Picture Graphs and Bar Graphs (continued)

Bar graphs

4.



Which has the most?

Ali: 5 up → 5 books
Bea: 9 up → 9 books
Caz: 7 up → 7 books
Dev: 6 up → 6 books

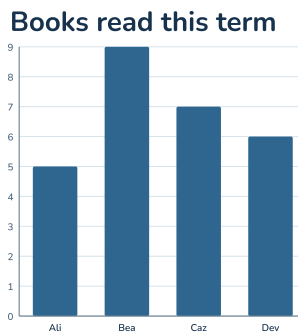
Bea

Check the key first, every time. Here one square is one book, so counting is enough — but that is a fact to check, not to assume.

So the counts read straight off: Ali 5, Bea 9, Caz 7, Dev 6.

Now the question, on the NUMBERS rather than the marks: Bea (9). So the answer is Bea.

5.



Which has the fewest?

Ali: 5 up → 5 books
Bea: 9 up → 9 books
Caz: 7 up → 7 books
Dev: 6 up → 6 books

Ali

Check the key first, every time. Here one square is one book, so counting is enough — but that is a fact to check, not to assume.

So the counts read straight off: Ali 5, Bea 9, Caz 7, Dev 6.

Now the question, on the NUMBERS rather than the marks: Ali (5). So the answer is Ali.