

Student Booklet

MATHEMATICS



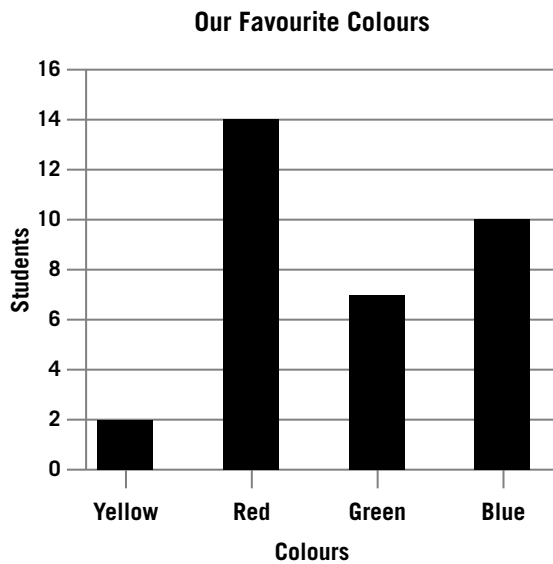
Education
Quality and
Accountability
Office

Please note: The format of these booklets is slightly different from that used for the assessment. The items themselves remain the same.

Section

1

1. This graph shows the results of a class survey on favourite colours.



How many more students picked red than blue?

- a 2
 - b 3
 - c 4
 - d 14
2. Which number shows more tens than hundreds?
- a 947
 - b 782
 - c 779
 - d 735

3. Which measurement is the shortest?

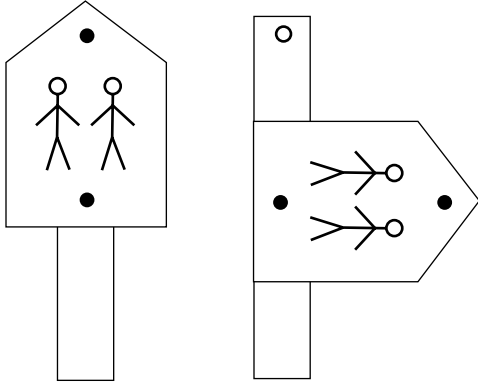
- a 2 m
- b 6 km
- c 7 mm
- d 30 cm

4. Jamal has collected 60 pop tabs, but he wants to have about 500 before he donates them.

About how many more tabs does he need?

- a 100
- b 200
- c 300
- d 400

5. Look at the school sign.



The wind blew it.

Tell how the sign can be fixed.

- a $\frac{1}{4}$ turn
- b $\frac{1}{2}$ turn
- c flip
- d slide

6. Jiang bakes 24 cookies.

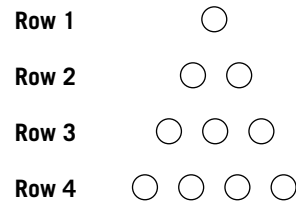
He wants to divide them equally among 6 friends.

He does not keep any for himself.

How many cookies will each friend receive?

- a 2
- b 3
- c 4
- d 6

7. There are 10 coins arranged in a pattern.

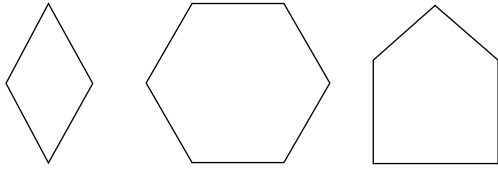


The pattern continues.

How many coins will there be altogether in 7 rows?

- a 7
- b 15
- c 16
- d 28

8. Look at these shapes.



What are the names of these shapes?

- a rhombus, hexagon, triangle
- b pentagon, octagon, hexagon
- c rhombus, hexagon, pentagon
- d rhombus, pentagon, octagon

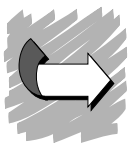
9. Morgan's teacher asks him to subtract 178 from 253.

Here is Morgan's work.

$$\begin{array}{r} 253 \\ -178 \\ \hline 125 \end{array}$$

* Is Morgan's work correct?

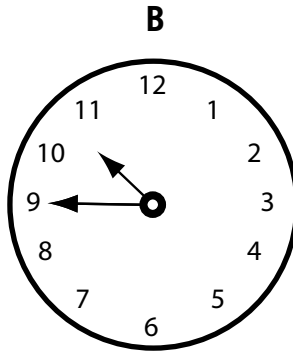
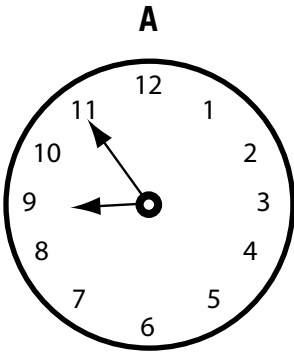
Show how you know.



10. Ryan's bedtime is 9:00 p.m.

He is almost ready for bed.

He looks at the clock.



* Which of these two clocks shows the correct time?

Explain how you know.

11. Start at 26.

Circle the number that is 5 more.

Continue the pattern of adding 5 more.

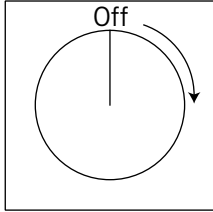
Do this seven times.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

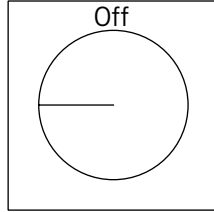
Describe the patterns you notice.

12. Kim is listening to her stereo.

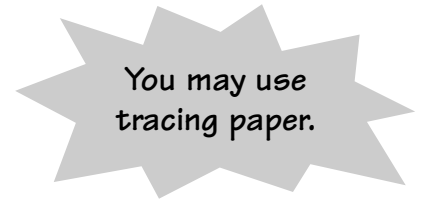
This is the volume control.



Position A



Position B

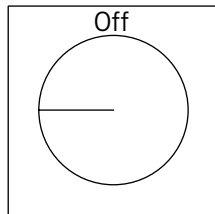


She makes the volume louder and louder.

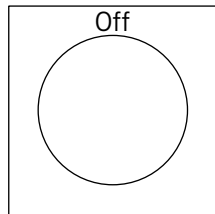
* What fraction of a turn is the change from Position A to Position B?

Kim's mother tells her to make the stereo quieter.

* Draw the volume control in Position C to make the stereo quieter.



Position B

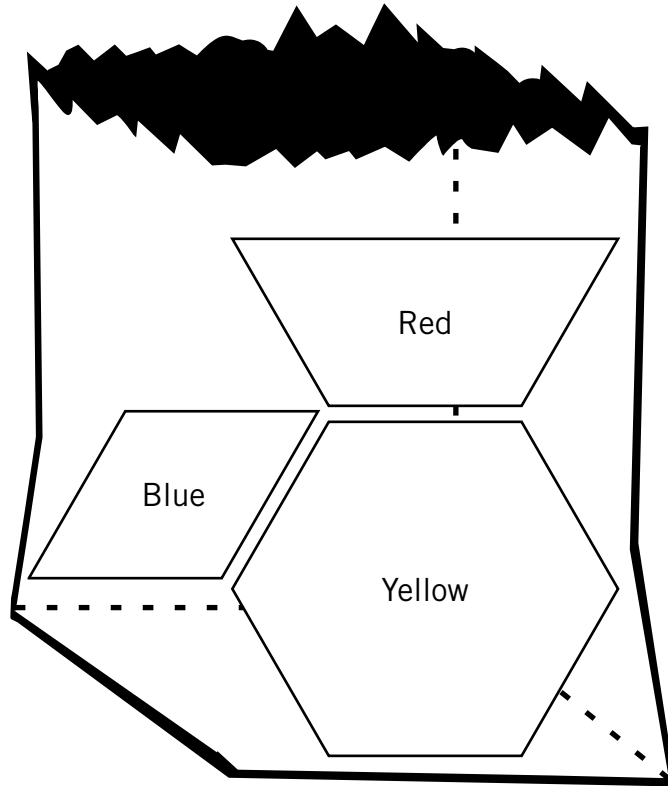


Position C

* What fraction of a turn is the change from Position B to Position C?

13. Kahan puts a red pattern block, a blue pattern block and a yellow pattern block in a bag.

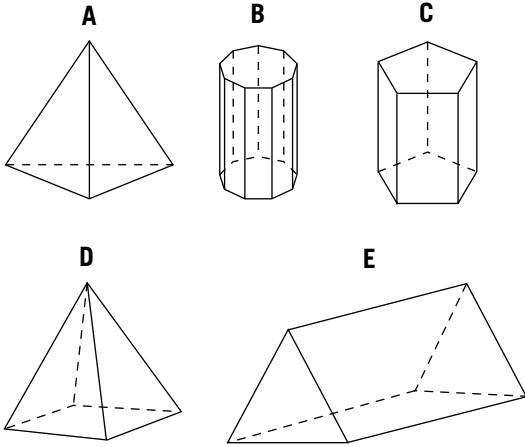
He removes 1 pattern block at a time from the bag and puts it on his desk.



What are all the possible ways Kahan can remove the 3 pattern blocks from the bag? How do you know you have found all of the possible ways?

Explain your thinking.

14. Look at the figures.



Hannah wants to use only prisms to build a structure.

Which figures will she use?

- a A, B, C
- b B, C, D
- c B, C, E
- d A, D, E

15. Jonathan bakes a number of cookies that could be shared equally among 2, 5 or 10 friends.

How many cookies does he bake?

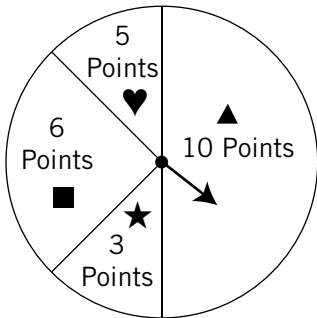
- a 15
- b 17
- c 18
- d 20

16. It takes 340 days to build a boat.

About how long is that?

- a 3 years
- b 2 years
- c 1 year
- d $\frac{1}{2}$ a year

17. Look at the spinner and the results of a game.

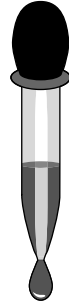


Spin	Points	
	Player 1	Player 2
1	3	5
2	10	10
3	6	10
4	10	?
Total	29	31

Where did the spinner land for Player 2 on the 4th turn?

- a ★
- b ■
- c ▲
- d ♥

18. Jonathan uses an eyedropper to put 5 drops of food colouring into a glass of water.



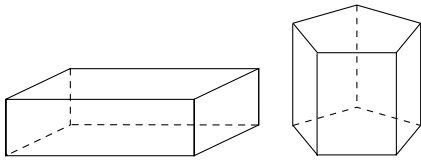
About what volume of food colouring does Jonathan put into the water?

- a 1 L
- b 5 g
- c 1 mL
- d 5 cm

19. Which object should be measured in grams?

- a cat
- b apple
- c person
- d elephant

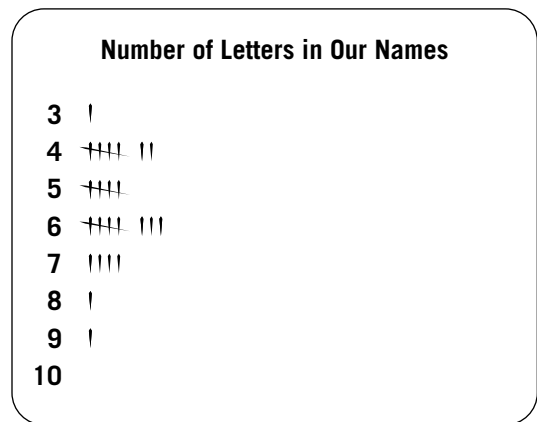
20. Look at these prisms.



Which statement is true?

- a Both have 6 faces.
- b Both have 15 edges.
- c Both have square faces.
- d Both have 2 faces that are identical.

21. Look at this chart.



Which statement is true of the names of most people in the chart?

- a They are 4 letters long.
- b They are 7 or 8 letters long.
- c They are 4 or 6 letters long.
- d They are 5 or 6 letters long.



Section

2

22. Anna wants a small ice cream cone that costs \$1.25.

She adds chocolate sauce for \$0.50 and crushed candy for \$0.55.

How much does her order cost?

- a \$1.75
- b \$2.20
- c \$2.21
- d \$2.30

23. Laurie puts pennies in her piggy bank every day.

Each day, she puts in 2 more pennies than she put in the day before.

The first day, she puts in 2 pennies.

How many pennies does she put in the fourth day?

- a 2
- b 6
- c 8
- d 12

24. Look at the basketballs.



What fraction of the balls need air?

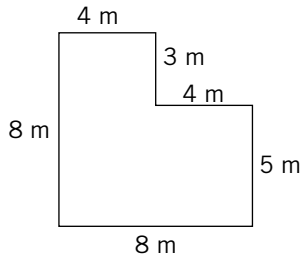
- a $\frac{2}{3}$
- b $\frac{2}{5}$
- c $\frac{3}{2}$
- d $\frac{3}{5}$

25. What number is missing from this pattern?

3, __, 13, 18, 23, 28

- a 5
- b 6
- c 7
- d 8

26. Mr. Malone wants to put a fence around his garden to keep the dogs out.



Which number sentence tells how much fence he needs?

- a $8 + 5 + 4 + 3$
- b $8 + 5 + 4 + 3 + 4$
- c $8 + 8 + 5 + 4 + 3 + 4$
- d $8 \times 8 \times 5 \times 4 \times 3 \times 4$

27. Ms. Tallick's class is reading books for a read-a-thon.

The chart shows how many books some of the students in the class have read.

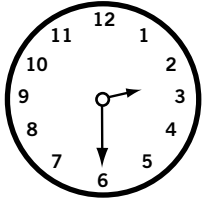
Name	Number of Books
Amil	128
Frank	231
Sama	235

How many more books has Sama read than Amil?

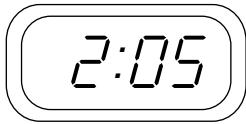
- a 103
- b 107
- c 113
- d 363

28. Which clock shows a time between 1:00 and 2:00?

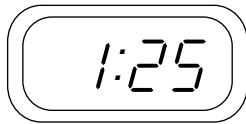
a



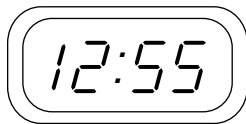
b



c



d



29. Look at the number line.



What number goes in the box marked **x**?

a 84

b 87

c 88

d 89

30. Omar empties his backpack and finds some money.

He thinks he has enough to buy a book for \$5.00 at the book fair.



Does Omar have enough money to buy the book?

Explain your thinking.

31. Mrs. Irvine is putting pictures on a board.

She has put up $\frac{3}{4}$ of the pictures.

What does $\frac{3}{4}$ mean?

Explain your thinking.

32. Justin is riding his bike.

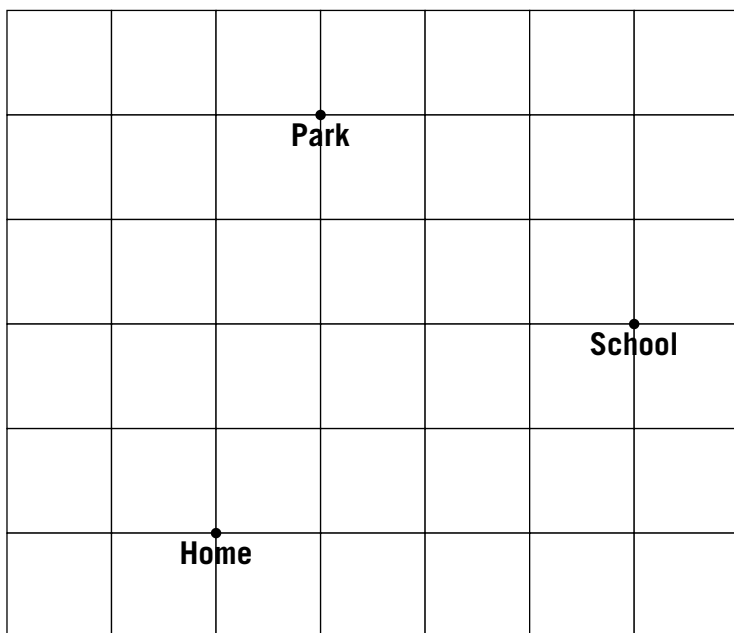
He starts at school.

He travels

2 squares up and

3 squares left.

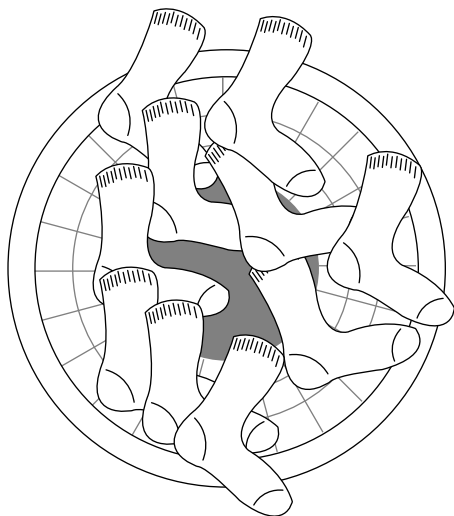
He arrives at the park.



How can Justin get home?

Use the grid to help you describe the moves.

33. There are 10 socks in the basket.

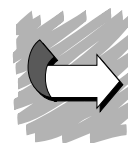


Legend

Brown = **B**
White = **W**
Green = **G**

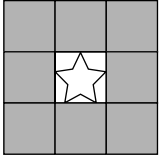
Label the socks so that, without looking, you are likely to pick a brown sock and unlikely to pick a white sock, and so that it is impossible to pick a green sock.

* Use the legend to label the socks.

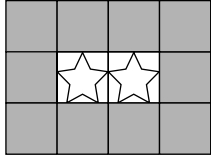


34. Look at the pattern.

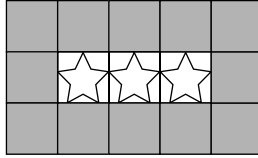
1





2



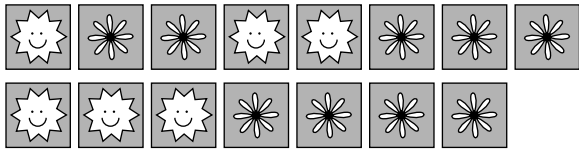
3



Fill in the chart to keep track of the patterns of shaded squares and stars.

Figure		
1	8	
2		2
3		
4		
5		

35. Look at the pattern.



How many flowers and suns are needed for the next section of this pattern?

- a 4 suns, 4 flowers
- b 4 suns, 5 flowers
- c 5 suns, 4 flowers
- d 5 suns, 5 flowers

36. On Monday, the school library has 2378 books on its shelves.

137 books are signed out that day.

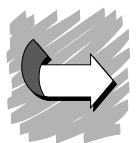
The same day, 108 books are returned to the library.

Which number sentence can be used to find the number of books in the school library when the library closes on Monday?

- a $2378 + 137 - 108 = \underline{\quad}$
- b $2378 + 137 + 108 = \underline{\quad}$
- c $2378 - 137 - 108 = \underline{\quad}$
- d $2378 - 137 + 108 = \underline{\quad}$

37. Which option **is not** a pattern in which a constant is added or subtracted?

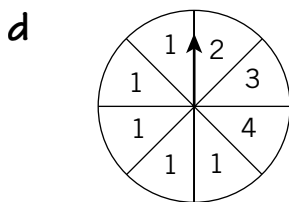
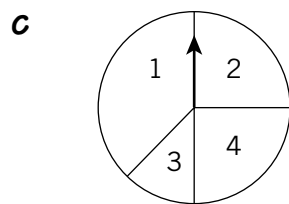
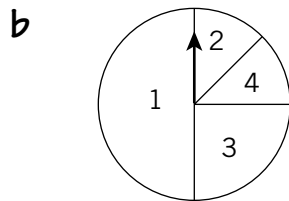
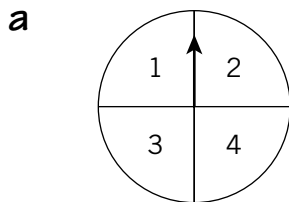
- a 35, 30, 25, 20, 15
- b 7, 9, 11, 13, 15
- c 1, 3, 6, 10, 15
- d 16, 26, 36, 46, 56



38. Jon plays the “Spin to Win” game and records his spins.

Spin to Win	
1	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
2	✓ ✓ ✓ ✓
3	✓
4	✓ ✓ ✓ ✓

Which spinner did he likely use to play the game?



39. The students are always losing their pencils.

This graph shows the number of pencils they lose in one week.

Day	Lost Pencils
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

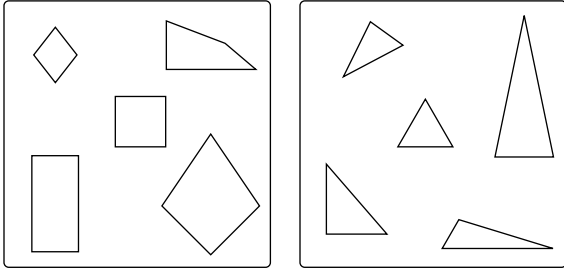
= 3 pencils

On Friday, they lose 12 pencils.

How many pencils should be drawn on the graph?

- a 12
- b 6
- c 5
- d 4

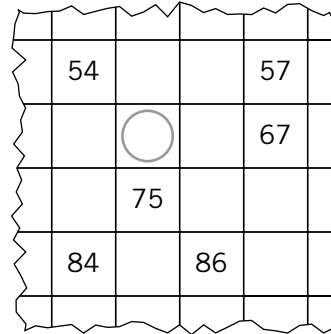
40. Look at the two groups of shapes.



Which rule was used to sort the shapes?

- a rectangles and triangles
- b 4-sided figures and triangles
- c squares and figures with 3 vertices
- d 4 vertices and more than 4 vertices

41. This is a part of a hundreds board with some numbers missing.



What number belongs in the circle?

- a 55
- b 59
- c 65
- d 64

42. Which group has only even numbers?

- a 402, 516, 657
- b 420, 606, 954
- c 430, 603, 712
- d 427, 621, 942

