

Student Booklet

MATHEMATICS

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

1 Which of the following could be the temperature on a warm, sunny day?

- $-23\text{ }^{\circ}\text{C}$
- $5\text{ }^{\circ}\text{C}$
- $25\text{ }^{\circ}\text{C}^*$
- $100\text{ }^{\circ}\text{C}$

2 Britta uses estimation to solve the following problem.

$$\begin{array}{r} 82 \\ 28 \\ + 91 \\ \hline \end{array}$$

Which is closest to the sum?

- $80 + 20 + 80$
- $80 + 20 + 90$
- $80 + 30 + 90^*$
- $80 + 30 + 100$

3 Which of the following is another way to show 4×6 ?

- $4 + 4 + 4 + 4$
- $6 + 6 + 6 + 6^*$
- $4 \times 4 \times 4 \times 4$
- $6 \times 6 \times 6 \times 6$

4 Nicholas and Valerie are counting money in math class. Nicholas has the coins shown below.



Valerie uses different coins to equal the amount of money Nicholas has.

Which could be the coins Valerie uses?



*

- 5** Each face on Jaime's number cube has a different number:

1, 2, 3, 4, 5, 6

He rolls the number cube 1 time.
What are the chances the number cube lands with a 2 or a 5 facing up?

- 1 out of 5
- 2 out of 4
- 2 out of 6 *
- 4 out of 6

- 6** Kevin is making a number pattern by repeating the first three numbers he writes in the same order.

Which of the following could be Kevin's pattern?

- 2, 4, 6, 2, 4, 6, 2, ... *
- 2, 4, 6, 8, 10, 12, 14, ...
- 2, 4, 2, 4, 2, 4, 2, ...
- 2, 2, 4, 4, 6, 6, 2, ...

- 7** Chloe wants to solve the number sentence shown.

$$23 - 6 = \square$$

Which of the following number sentences could Chloe use to check her answer?

- $26 - 3 = 23$
- $23 + 6 = 29$
- $17 - 6 = 11$
- $17 + 6 = 23$ *

- 8** Chitra makes the following number pattern using a rule. The pattern continues in the same way.

5, 9, 13, 17, 21, 25, 29, . . .

Use the list below to create another number pattern.

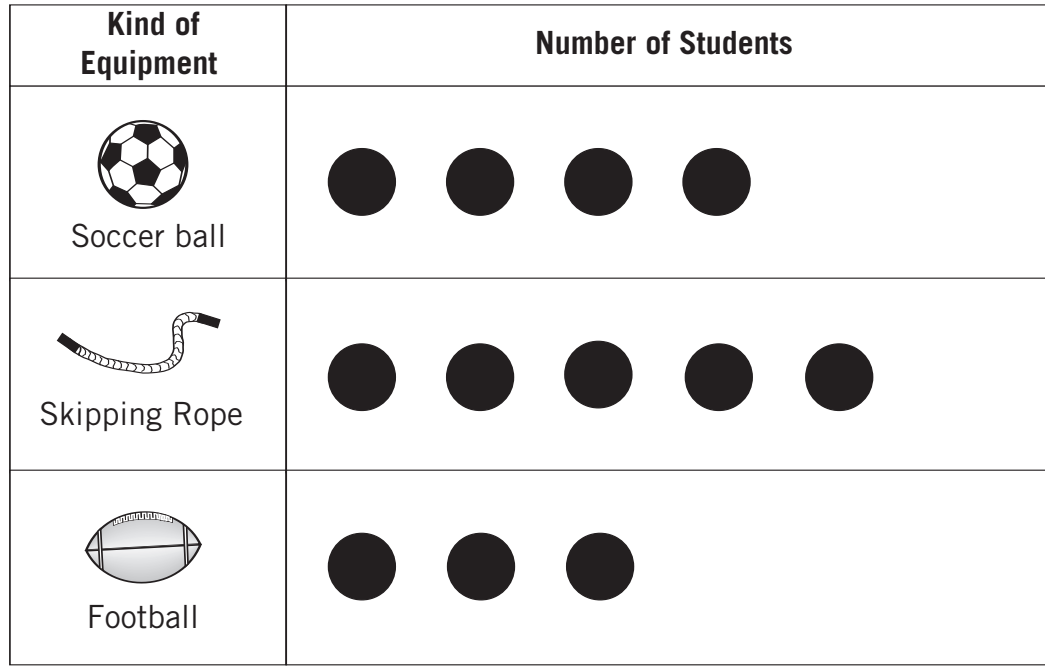
- Use Chitra's pattern rule.
- Start with the number 6.
- Include 5 more numbers in your pattern.

Describe the rule Chitra used to make her pattern.

My number pattern is 6, _____, _____, _____, _____, _____.

- 9 The pictograph shows the number of students who use each kind of playground equipment at recess.

Playground Equipment Used



Each  represents 2 students.

According to the data in the graph, how many more students use skipping ropes than footballs at recess?

Explain how you got your answer.

_____ more students use skipping ropes than footballs at recess.

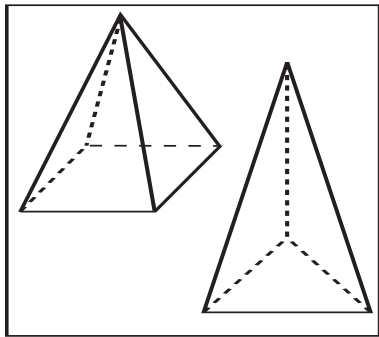
10 Ryan is given the following problem to solve.

“There are 30 maple trees on a farm. Half the trees have been tapped for sap. What is the total number of trees that have been tapped for sap?”

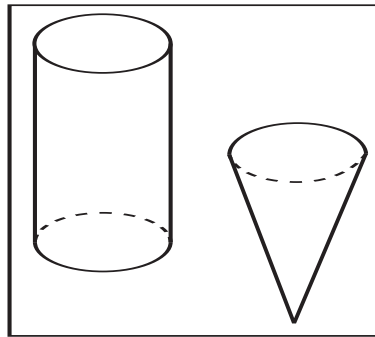
Ryan gets an answer of 18 trees. Is his answer correct?

Explain your thinking.

- 11** Alana sorts 4 figures into Groups W and X as shown.

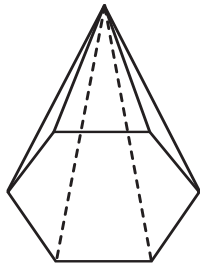


Group W



Group X

In which group should Alana place the following figure?



Explain your thinking.

Alana should place the figure in Group _____.

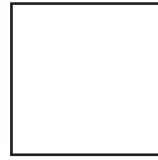
12 The picture of the clock below shows the time when Mary finishes her breakfast.



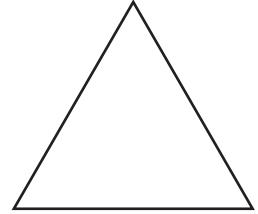
What time is shown on this clock?

- 7:15
- 7:45 *
- 8:15
- 8:45

13 Use your ruler to measure the perimeter of each of the following shapes.



W



X



Y

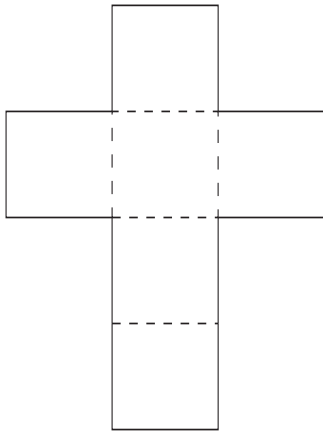


Z

Which shape has the greatest perimeter?

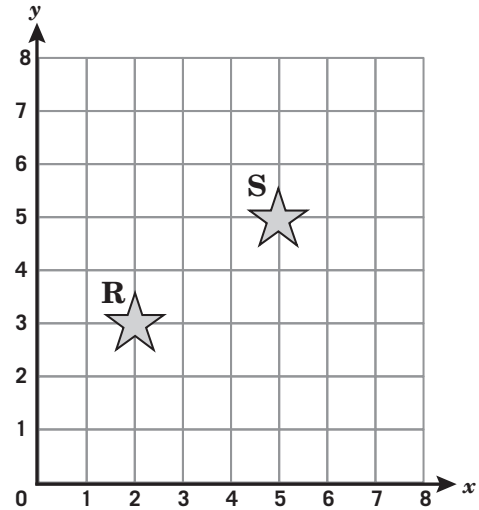
- Shape W
- Shape X
- Shape Y *
- Shape Z

- 14** Which figure can be formed using the net shown?



- Cube *
 Cylinder
 Square-based pyramid
 Sphere

- 15** The result of a slide of the ★ from Point R to Point S is shown on the coordinate grid below.



Which best describes the two-step slide of the figure from Point R to Point S?

- 3 units left, then 1 unit down
 3 units left, then 2 units down
 3 units right, then 1 unit up
 3 units right, then 2 units up *

16 Which addition sentence is related to $16 - 5 = 11$?

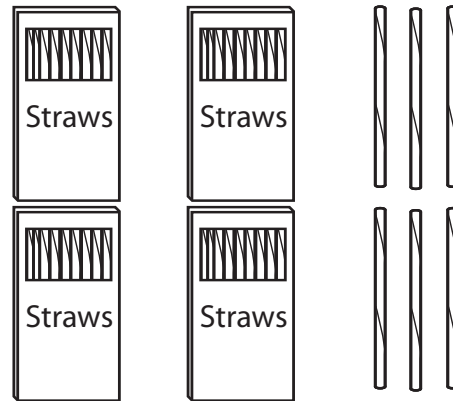
- $16 + 5 = 21$
- $5 + 11 = 16$ *
- $6 + 5 = 11$
- $11 + 16 = 27$

17 Allan has 600 cards in his collection. Billy has 387 fewer cards in his collection than Allan.

How many cards does Billy have in his collection?

- 987
- 387
- 323
- 213 *

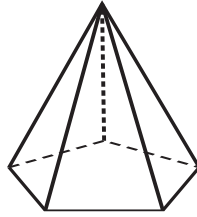
18 The students in Ms. Hyde’s class separate straws into boxes of 100. The model below shows how many boxes they make and the number of leftover straws.



What number is represented by the model shown?

- 46
- 64
- 406 *
- 460

- 19** What is the total number of edges on the figure shown below?



- 5
 8
 10 *
 12

- 20** Which statement about a rectangle is always true?

- It has a total of 3 sides.
 Two sets of sides are parallel. *
 It has only 1 line of symmetry.
 All sides are of equal length.

- 21** Nalini is using the rule “add 4” to shade numbers on the hundreds chart shown. She starts her pattern with the number 3.

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 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 |

The pattern continues in the same way. What number will Nalini shade on the chart next?

- 45
 47 *
 49
 51

- 22** Which number can be placed in the box to make this number sentence true?

$$183 + \square = 200$$

- 393
- 383
- 27
- 17 *

- 23** David must wait 1 year before he is old enough to join the baseball team.

Which of the following is closest to the total number of days in 1 year?

- 356
- 360
- 365 *
- 376

- 24** The number pattern below shows how Judy is counting aloud by 25s. She starts at 150 and counts by 25s.

150, 175, 200, 225, 250,

_____, _____

What will Judy's 7th number be?

- 250
- 275
- 300 *
- 325

- 25** There are 28 students in Daniel's class. The list shows how all the students get to school each morning.

- 3 ride in cars.
- 4 walk.
- ? ride in buses.

What is the total number of students who ride in buses to get to school?

- 7
- 21 *
- 24
- 28

- 26** Beverly counts by 2s to mark points on the number line shown.



Which two numbers before 25 should Beverly mark with points?

- 21 and 22
- 21 and 23 *
- 22 and 24
- 23 and 24

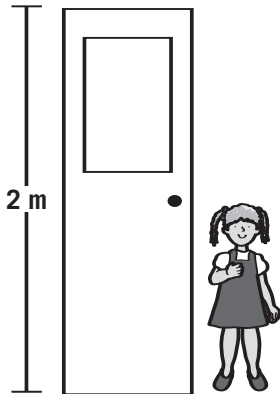
27 The students in Mr. David’s class are creating art projects. The chart shows the number of supplies needed to complete 1 art project.

Mr. David needs to buy enough supplies for 7 art projects. Complete the chart to show the total number of each kind of supplies Mr. David will need to buy.

Art Project Materials

| Supplies | Number Needed for 1 Art Project | Total Number Needed for 7 Art Projects (Show and explain your work.) |
|-----------------|--|---|
| Googly Eyes | 2 | |
| Pipe Cleaners | 6 | |
| Paper Plates | 1 | |

- 28** The picture shows Tarah standing next to her front door.



Tarah's older brother, Rhaj, is 50 cm taller than Tarah.
















About how tall is Rhaj?

Explain your thinking.





Rhaj is about _____ tall.

29 The students in Mr. Landon’s class record the weather each day for the first 15 days on the following calendar.

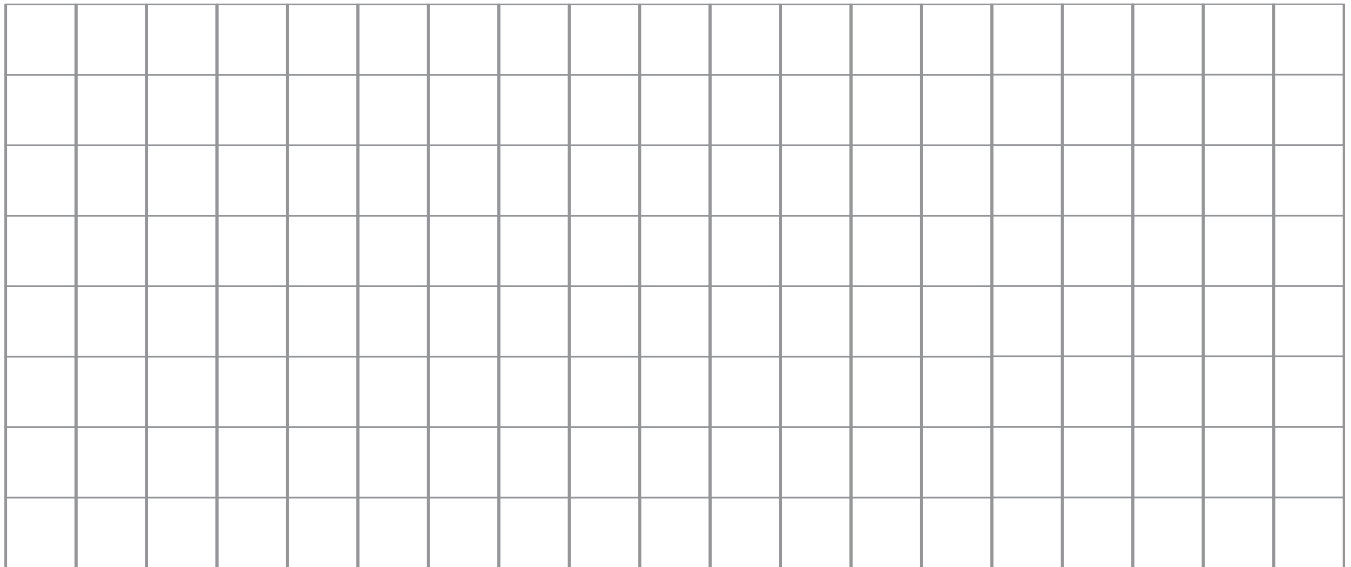
APRIL

| Sun. | Mon. | Tues. | Wed. | Thurs. | Fri. | Sat. |
|---|---|---|--|---|---|---|
| | | 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 | | | |

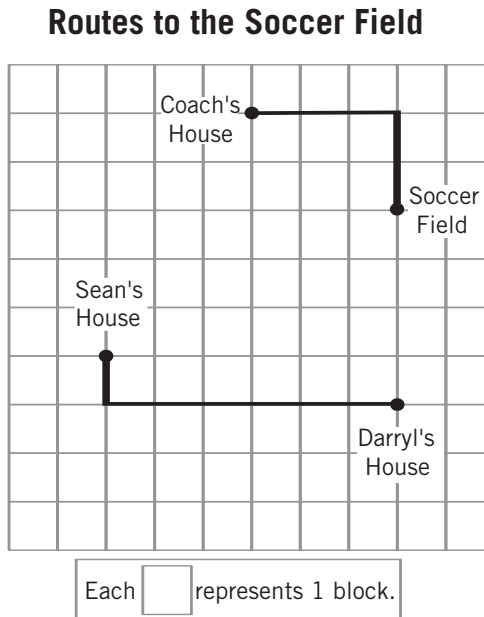
Legend

| | |
|---|--|
|  Rainy |  Cloudy |
|  Partly Sunny |  Sunny |

On the grid paper below, draw a bar graph of the number of days of each type of weather, using the information from the calendar. Include a title and labels for your bar graph.



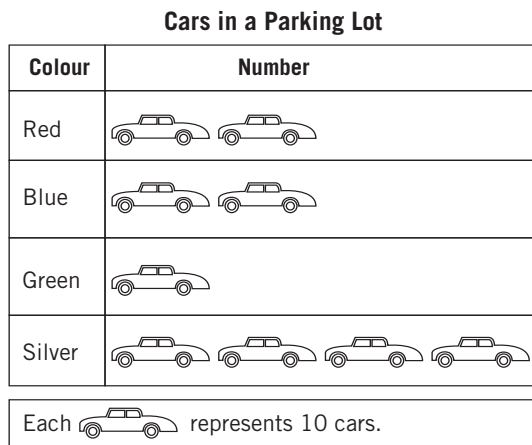
- 30** A soccer coach uses the following map to show Sean and Darryl where the new soccer field is. The route from the coach's house to the soccer field is 3 blocks right then 2 blocks down.



Describe a route from Sean's house to Darryl's house and then to the soccer field.

Describe a different route that Sean could take if he goes directly from his house to the soccer field.

31 The pictograph shows the number of each colour of car in a parking lot.



According to the graph, how many fewer green cars than silver cars are in the parking lot?

- 2
- 3
- 20
- 30 *

32 Michael has 8 white shirts and 2 blue shirts in a bag. He takes 1 shirt from the bag without looking. Which best describes the chance that the shirt Michael takes from the bag is blue?

- Impossible
- Unlikely *
- Likely
- Certain

33 Ashley used a rule to make this repeating pattern.




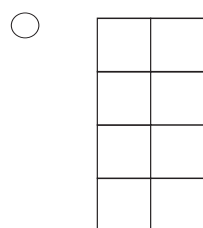
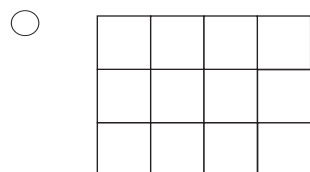
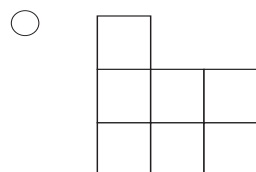
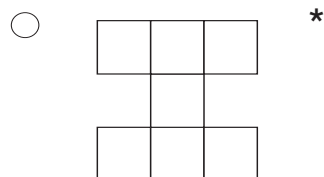
Which sentence best describes the change in the direction of the shaded arrow in Ashley's pattern?

- The arrow is flipped to point up each time.
- The arrow is flipped to point down each time.
- The arrow is rotated $\frac{1}{4}$ turn clockwise each time. *
- The arrow is rotated $\frac{1}{4}$ turn counterclockwise each time.

34 Which set of measurements is listed in order from smallest to largest?

- 7 cm, 20 cm, 1 m, 3 m *
- 20 cm, 7 cm, 3 m, 1 m
- 3 m, 1 m, 20 cm, 7 cm
- 1 m, 3 m, 7 cm, 20 cm

35 In the following figures, each  represents 1 square unit. Which figure has a perimeter of 16 units and an area of 7 square units?





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