

## Summary

### Test Identification

<b>Name</b>	2016 MAT SW 1.2
<b>Date Created</b>	26 Jan 2016
<b>Date Modified</b>	24 Mar 2016
<b>Subject</b>	Mathematics
<b>Status</b>	SCORED
<b>Sequence Number</b>	568437
<b>Total Test Time</b>	57 minutes
<b>Delivery Method</b>	Onscreen

### Curriculum Strand

<b>Statistics</b>	12	<b>Algebra</b>	10
<b>Number Sense &amp; Operations</b>	10	<b>Number Knowledge</b>	10

### Curriculum Level

<b>2B</b>	17	<b>2P</b>	12	<b>2A</b>	13
<b>3B</b>	1	<b>3P</b>	1	<b>3A</b>	2

### Cognitive Processing

<b>Surface</b>	29	<b>Deep</b>	22
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### Slider Settings

<b>Strands</b>		<b>Level</b>	
<b>Number Knowledge</b>	Most	<b>Level 2</b>	Most
<b>Number Sense &amp; Operations</b>	Most		
<b>Algebra</b>	Most		
<b>Statistics</b>	Most		

## Marking Guide : 2016 MAT SW 1.2

Q.No	Marking Key
1	a
2	c
3	a
4	a
5	b
6	a
7	b
8	c
9	a
10	a
11	b
12	b
13	c
14	c
15	34, 37
16	Add 3 'Any equivalent answer for 1 mark.'
17	d
18	b
19	c
20	d
21	a
22	b
23	d
24	a
25	b
26	b

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### Instructions

**Underlined Questions** e.g. 10 :Use teacher judgement. Give 1 if answer matches marking guide (unless otherwise instructed). For incorrect answers give 0 (zero).

**All other Questions:** Enter the response chosen by the student using letters. For example, 'a' for the first option; 'b' for the second option; 'c' for the third option and so on.

**Questions Not Answered:** Enter a dash (-).

Q.No	Marking Key
27	a
28	d
29	c
30	a
31	c
32	b
33	b
34	b
35	d
36	d
37	c
38	d
39	b
40	b
41	c
42	c
43	a
44	a
45	c
46	d
47	a
48	c
49	d
50	a
51	b

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Instructions

**Underlined Questions** e.g. 10 :Use teacher judgement. Give 1 if answer matches marking guide (unless otherwise instructed). For incorrect answers give 0 (zero).

**All other Questions:** Enter the response chosen by the student using letters. For example, 'a' for the first option; 'b' for the second option; 'c' for the third option and so on.

**Questions Not Answered:** Enter a dash (-).

Choose a circle to show how much each sentence is like you

Very Unlike Me 1	Unlike Me 2	Like Me 3	Very Like Me 4
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**01.** I like maths at school.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**02.** I am good at maths.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**03.** My teacher thinks I am good at maths.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**04.** My Mum and Dad think I am good at maths.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**05.** I enjoy doing maths in my own time (not at school).

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**06.** I enjoy doing things in maths that I haven't tried before.

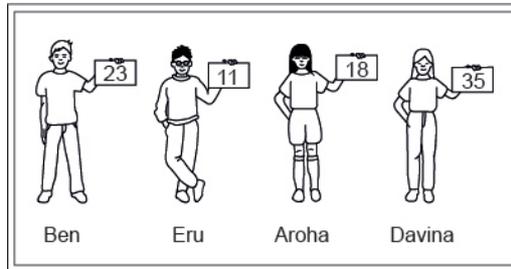
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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ADMINISTER ONSCREEN ONLY

## Practice Questions

These practice questions are to help you understand how to show your answer for different types of questions.

**P01.** Who is holding a card with an even number on it?

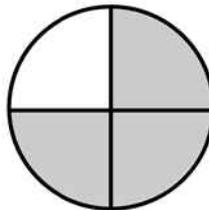


- Ben
- Eru
- Aroha
- Davina

**P02.** Complete this number pattern.

2, 4, \_\_\_\_\_, \_\_\_\_\_, 10

**P03.** What fraction of this circle is shaded?



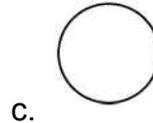
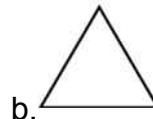
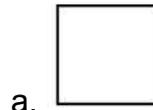
\_\_\_\_\_



**P04.** Match the sentence with the correct shape.

1. I have three sides

2. I have 4 sides



**P05.** Which numbers make this number sentence **TRUE**?

$$2 + \star > 5$$

1

2

3

4

5

**P06.** Put the numbers 1, 2, 3, and 4 in the boxes to order these numbers from biggest (1) to smallest (4).

3

7

2

0

**P07.** Select whether the following statements are True or False.

In the number 213, the value of 1 is ten.

**TRUE**

**FALSE**

In the number 504, the value of 5 is fifty.

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01. Which list gives the items in order from **coldest** to **hottest**?



hot dog



ice cream



banana

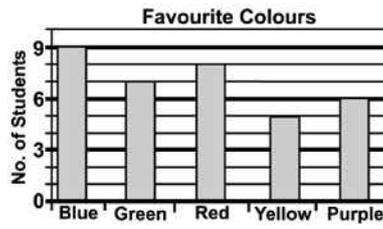
- Ice cream, banana, hot dog
- Ice cream, hot dog, banana
- Banana, ice cream, hot dog
- Banana, hot dog, ice cream

02. How is 58 written in words?

- five eight
- eighty-five
- fifty-eight

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03. Pietro surveyed 35 students about their favourite colours and made this bar graph. Which of the following tally charts did he use to make this graph?



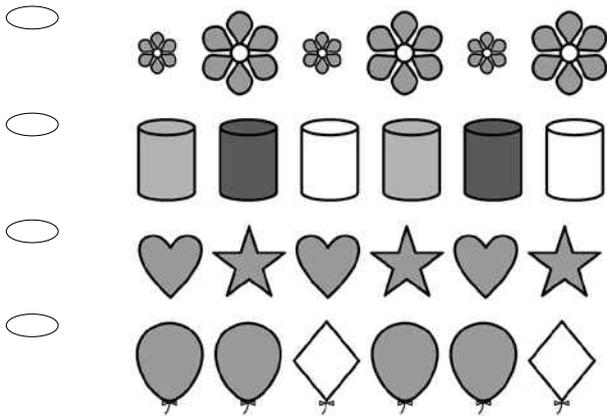
Blue	#
Green	#
Red	#
Yellow	#
Purple	#

Blue	# #
Green	#
Red	#
Yellow	#
Purple	#

Blue	#
Green	#
Red	#
Yellow	
Purple	#

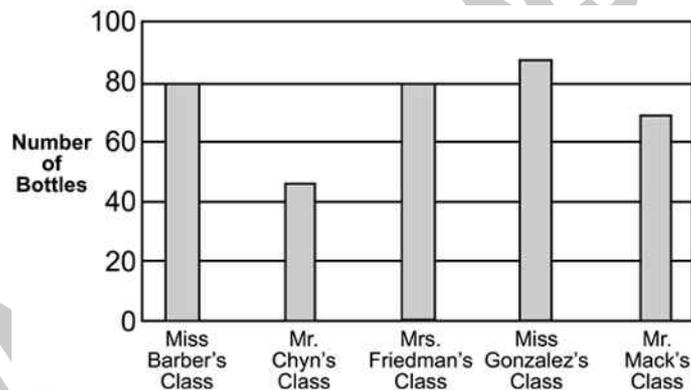
Blue	#
Green	#
Red	#
Yellow	#
Purple	#

04. Which of the patterns below is based on changes in **size**?



Use the following information to answer questions 05 to 06.

Central School had a bottle collection. Children in each class brought empty bottles to school. The principal made a bar graph of the number of bottles from five classes.



05. Which class collected 45 bottles?

- Miss Barber's class
- Mr Chyn's class
- Mrs Friedman's class
- Mr Mack's class

06. Which two classes collected exactly 80 bottles?

- Miss Barber's and Mrs Friedman's classes
- Miss Barber's and Mr Mack's classes
- Mrs Friedman's and Miss Gonzalez's classes
- Miss Gonzalez's and Mr Mack's classes

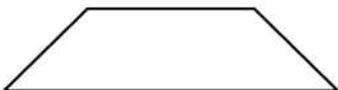
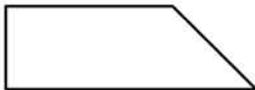
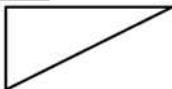
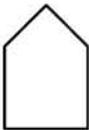
End of Section

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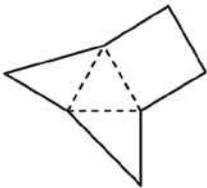
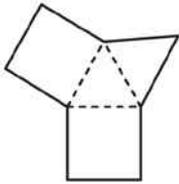
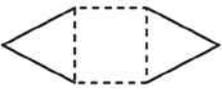
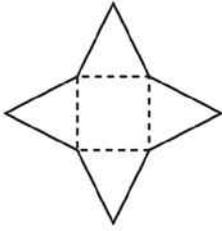
07. Which division fact is another way of writing  $4 \times 5 = 20$ ?

- $16 \div 4 = 4$
- $20 \div 5 = 4$
- $25 \div 5 = 5$

08. Which new figure can be formed by putting the rectangle and the triangle together?

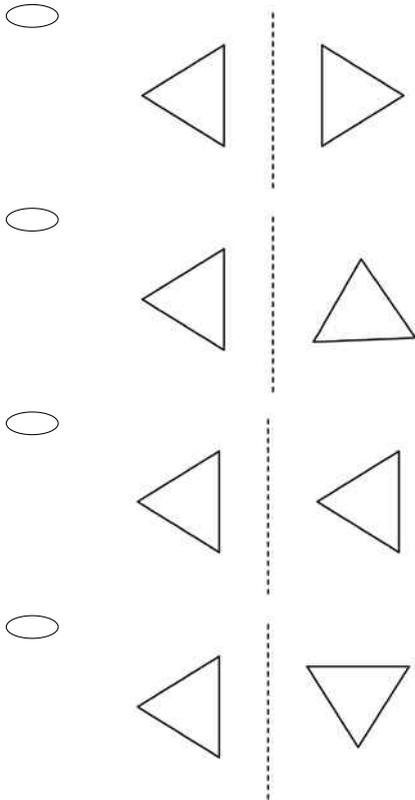


09. Which figure can form a pyramid when folded on the dotted lines without overlapping?

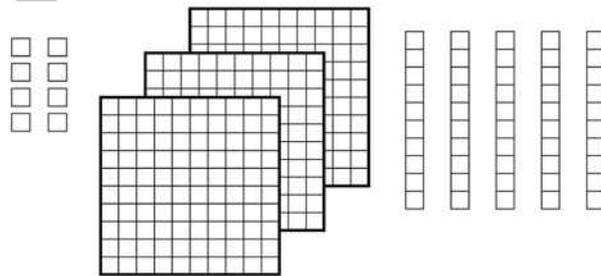


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10. Which of the following **BEST** shows a reflection (flip) of the shape across the dashed line?



11. Each small square is equal to 1. There are 10 small squares in each strip. There are 100 small squares in each large square. What number is shown?



- 16
- 358
- 538
- 835

12. What number is on the block 11th from the bottom?



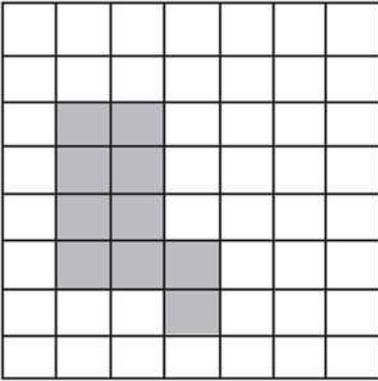
- 64
- 18
- 99
- 37

13. How far is 37 from 25?



- 8
- 11
- 12

14. Each small square on the grid is 1 square unit.



How many square units are needed to make the shaded figure?

- 5
- 9
- 10
- 13

Use the following information to answer questions 15 to 16.

22, 25, 28, 31, \_\_, \_\_

15. Complete this pattern.

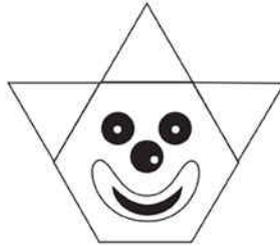
22, 25, 28, 31, \_\_\_\_\_, \_\_\_\_\_

16. What is the rule for this pattern?

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End of Section

17. Kara used 1 yellow hexagon and 3 green triangles to make the clown shown below. How many green triangles would she use to make 5 clowns?



- 5
- 8
- 12
- 15

18. David reads two pages every five minutes. How many pages will David have read after twenty-five minutes?

David's Reading

Minutes	5	10	15	20	25
Pages	2	4	6	8	

- 9 pages
- 10 pages
- 11 pages
- 12 pages

19. What does '2' stand for in the number 4237?

- 2
- 20
- 200
- 2000

20. If  $7 \times 11 \times 13 = 1001$ , then what is  $11 \times 7 \times 13$ ?

- 77
- 91
- 143
- 1001

21. Which digit is in the hundreds place in 7365?

- 3
- 5
- 6
- 7

22. Which means seven hundred thousand five hundred ninety-two?

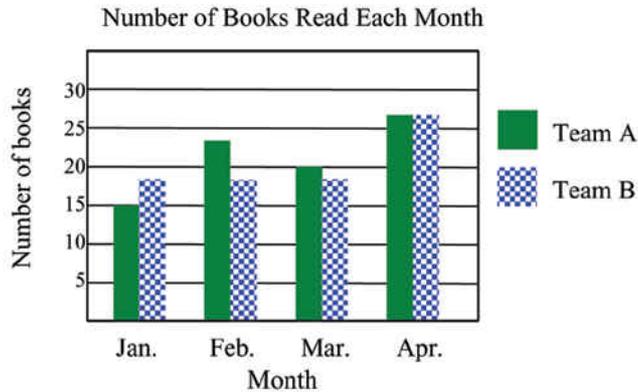
- 70 592
- 700 592
- 705 920
- 7 005 920

23. In which number does the 7 have the greatest value?

- 32 704
- 32 407
- 32 576
- 37 403

24. The graph below shows the number of books read each month by Ms Givens' students.

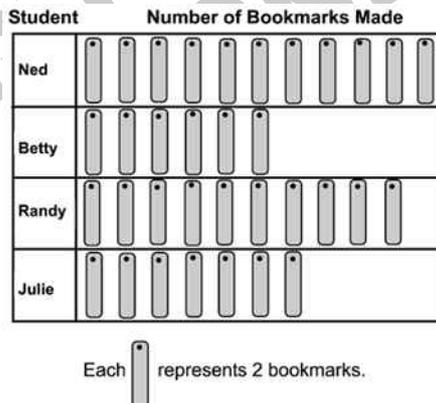
In which month did Team B read more books than Team A?



- January
- February
- March
- April

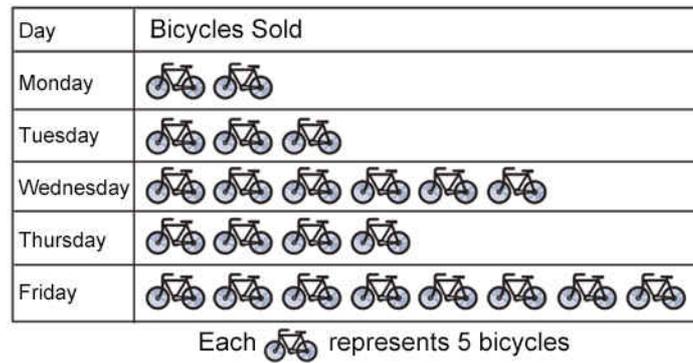
25. Four students made bookmarks to sell at the school fair. The graph shows the number of bookmarks each student made.

How many more bookmarks did Ned make than Julie?



- 6
- 8
- 16
- 18

26. The picture graph shows how many bicycles were sold each day. On which day did the store sell exactly 30 bicycles?



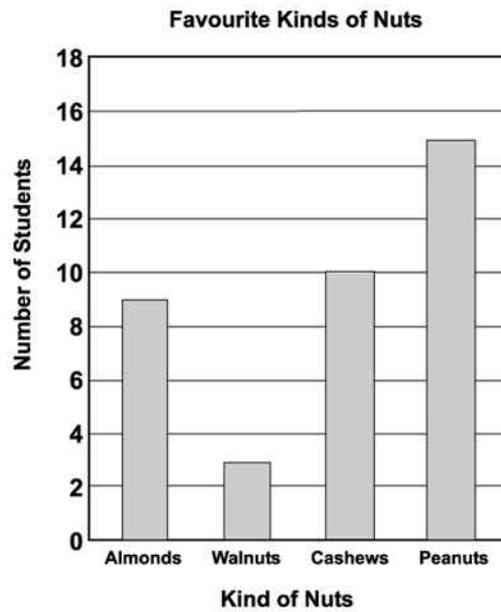
- Tuesday
- Wednesday
- Thursday
- Friday

27. What is the value of  $36 - 15$ ?

- 21
- 27
- 31

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28. The bar graph below shows the favourite kinds of nuts of the students in a class. Peanuts were the favourite nut of how many students?

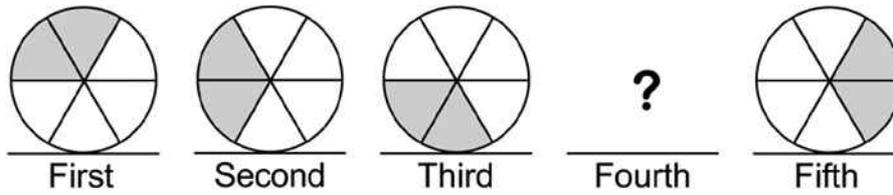


- 7
- 8
- 14
- 15

29. Tom read 1 book last month and 2 books this month. Each month this year Tom will read one more book than he did the month before. What is known from the facts above?

- Tom read 3 books last month.
- Tom read a book about dogs.
- Tom will read more books this month than last month.
- Tom read more books last month than he will this month.

30. Which of the figures below should be the fourth figure in the following pattern?



- 
- 
- 
- 

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**31.** The table shows the amount of time Karen spent practising ice skating. If the pattern in the table continues, how many minutes will Karen spend practising on Saturday?

Day	Practise Time
Monday	30 minutes
Tuesday	45 minutes
Wednesday	60 minutes
Thursday	75 minutes
Friday	90 minutes
Saturday	?

- 95
- 100
- 105
- 110

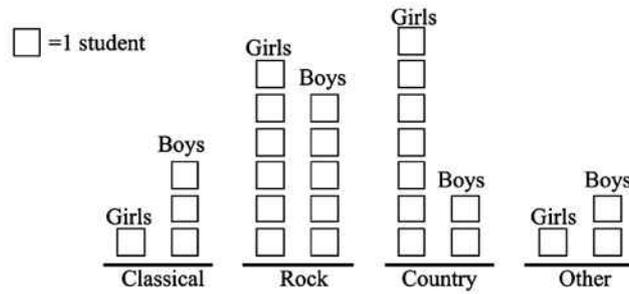
**32.** The first part of a pattern of arrows is shown below. If the pattern of arrows continues in the same way, what will the next three arrows look like?



- → →
- → ←
- ← → →
- ← → ←

33. Each boy and girl in the class voted for his or her favourite kind of music. Here are the results.

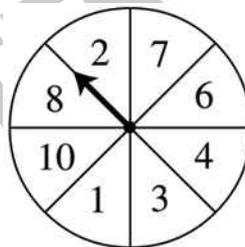
What kind of music did **MOST** students in the class prefer?



- Classical
- Rock
- Country
- Other

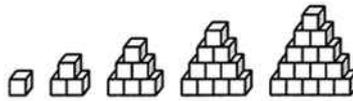
34. To win a game, Tamika must spin an even number on the spinner identical to the one shown below.

Are Tamika's chances of spinning an even number certain, likely, unlikely, or impossible?



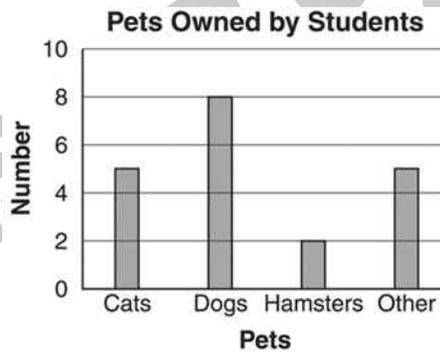
- Certain
- Likely
- Unlikely
- Impossible

35. Wayne used a pattern to make each stack of blocks in the group below. What should the next stack of blocks in this pattern look like?



36. The graph below shows the numbers of different kinds of pets owned by students in Mrs Smith's class.

How many pets in all are owned by the students?



4

8

18

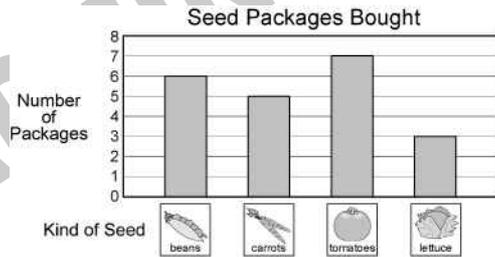
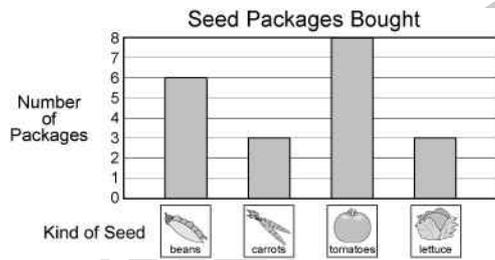
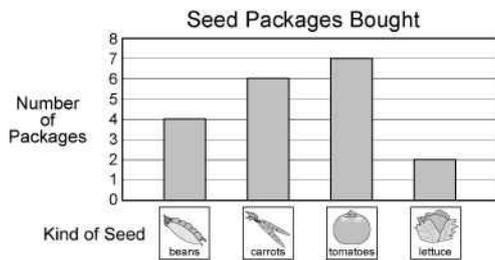
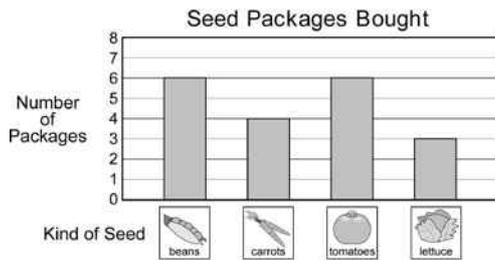
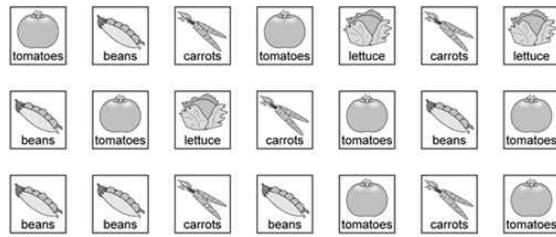
20

37. One stamp costs 34c. Two stamps cost 68c. Three stamps cost \$1.02.  
If the cost of each stamp remains the same, how much would four stamps cost?

- \$1.26
- \$1.34
- \$1.36
- \$12.16

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ONLY

38. Robert bought the packages of seeds shown below.  
Which bar graph correctly shows the number of packages Robert bought?



PREVIEW ONLY

A

**39.** What number would you have to subtract from 736290 to make the number 706290?

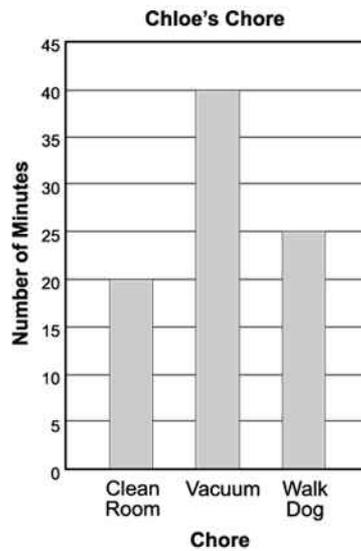
- 3 000
- 30 000
- 30
- 300 000

**40.** What number equals 3 ones + 5 tens + 4 hundreds + 60 thousands?

- 6453
- 60 453
- 64 530
- 354 060
- 604 530

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ONLY

41. The bar graph below shows the number of minutes it takes Chloe to do each chore. How many minutes does it take Chloe to clean her room and walk the dog altogether?



- 25
- 35
- 45
- 60

42. On a flight from Los Angeles to New York, the cost of a fare was \$400. Every seat was sold.

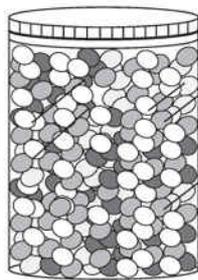
What additional information do you need to find the total for all fares?

- None
- The number of employees on the plane
- The number of passenger seats on the plane
- The distance from Los Angeles to New York

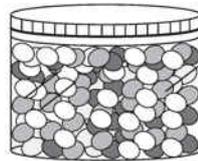
43. Jane has 200 sheets of paper. She used 27 for a report. How many sheets does she have left?

- 173
- 183
- 227

44. Which is the **BEST** estimate for the number of jelly beans in Jar B?



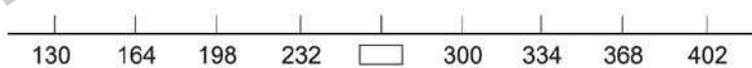
Jar A = 496 jelly beans



Jar B = ? jelly beans

- 250
- 300
- 200
- 350

45. Which number belongs in the box on the number line shown?

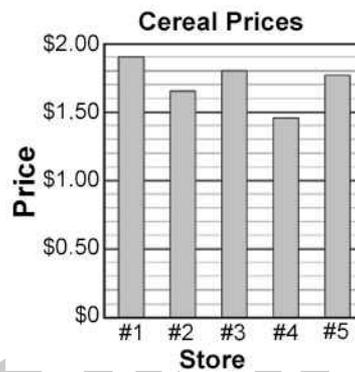


- 296
- 286
- 266
- 246

46. Dan made up a secret code in which A = 1, B = 2, C = 3, D = 4, and so on to Z = 26. Using Dan's secret code, what is the value of A + D + F?

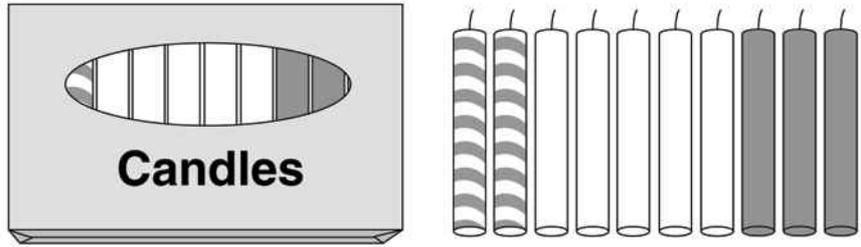
- 5
- 6
- 10
- 11

47. For a class project, Anita compared the price of a medium-sized box of Superflakes cereal at five different stores. All the prices were recorded on the same day. The graph below shows the prices she recorded. Which is **closest** to the price of the box of cereal at Store #2?



- \$1.65
- \$1.51
- \$1.13
- \$1.02

48. Mitch bought a box of candles.  
These are the candles that are in the box.  
If Mitch takes out 1 candle without looking, what is the probability that it will be striped?



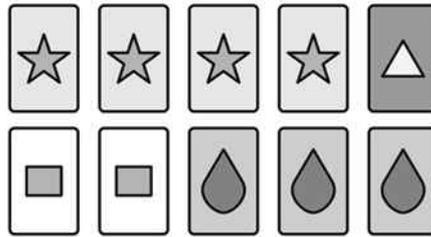
- $\frac{1}{2}$
- $\frac{2}{8}$
- $\frac{2}{10}$
- $\frac{1}{10}$

49. How many right angles are in a rectangle?

- 1
- 2
- 3
- 4

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50. These cards are used to play a game between two players.  
 If Sally draws one card at random, what is the probability it will be a card with a star?



- $\frac{2}{5}$
- $\frac{3}{10}$
- $\frac{1}{5}$
- $\frac{1}{10}$

51. The figure below shows a spinner with 24 sectors. When someone spins the arrow, it is equally likely to stop on any sector.

$\frac{1}{8}$  of the sectors are blue,  $\frac{1}{24}$  are purple,  $\frac{1}{2}$  are orange, and  $\frac{1}{3}$  are red.

If a person spins the arrow, on which colour sector is the spinner **LEAST** likely to stop?



- Blue
- Purple
- Orange
- Red

Please provide these instructions to all staff involved with administering e-asTTle online.

## Before the testing session

### 1. Make sure students have the right devices and browsers installed

Unsupported devices may result in the test not displaying correctly and affect students' scores.

Desktop/Laptop	Tablet (9"+)
<ul style="list-style-type: none"><li>• Windows, Mac or Chromebook</li><li>• Minimum window width: 1280 pixels</li><li>• Windows devices need Internet Explorer 9-11 or recent Edge, Chrome, Firefox</li><li>• Windows tablets/hybrids e.g., Surface Pro must have a keyboard attached</li><li>• Mac devices need recent Chrome or Safari</li></ul>	<ul style="list-style-type: none"><li>• iPads: iOS8+ with Safari</li><li>• Androids: Large tablet e.g., Samsung Galaxy Tab 4. Must have Android 4.4+ and latest Chrome</li><li>• Minimum window width: 768 pixels</li></ul> <p>iPad Minis and small Androids must not be used.</p>

More information on device requirements and the underlying rationale is available on the [help site](#).

### 2. Sit the Practice Test

[A practice test for each subject](#) is available. These are also available in the Student Portal (no login required). Practice tests are designed to familiarise you and your students with e-asTTle online before sitting a real test. Each practice test contains attitude questions, look-over time and 5-8 questions designed to be relatively simple to answer. [Teacher scripts](#) are available for practice tests.

### 3. Ensure you have student login information

More information on accessing student logins and resetting passwords is available on the [help site](#).

### 4. Check if calculators are required (Maths/Pāngarau)

Tests with questions at mostly Level 5 and 6 require the use of calculators. Tests with questions at mostly Levels 2 to 4 do NOT require a calculator.

## During the testing session

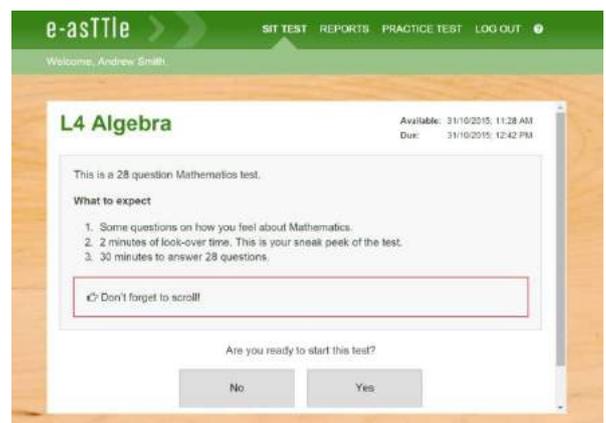
### 1. Check equipment

- Make sure students' devices are charged.
- Make sure students have scrap paper and a pen/pencil for working, calculators (if needed) and a quiet activity they can continue with if they finish early.

### 2. Read the Test Details to students

Once students select a test, they will see the test details page (example shown on right).

Read through this page aloud with your students.



Other reminders to discuss with students:

- Once they choose 'Yes', the timer starts. Once the timer is counting down, there is no way to pause the test. If students close the test accidentally, they can re-open it again, provided the timer hasn't finished.
- Ask students to raise their hand if something seems wrong.
- Fullscreen mode is recommended.

For students on iPad or Android tablet devices: remind them to lock their device in portrait mode.

For students on Windows hybrid devices (such as the Surface Pro): remind them to keep the keyboard attached during the test.

### 3. Supervising the test

Make sure you walk around and monitor students during the test. Students tend to continue with their test even if something has gone wrong – for example, a question does not display correctly. For this reason, check that pages are loading correctly, and students are scrolling to see all the content and options. It's a good idea to have a paper booklet of the test available during the testing session.

Students are generally expected to read the test content without assistance. Information on accommodations (e.g., reader-writers) is available on the [help site](#).

### 4. Know what to do if things go wrong

#### Internet disconnected

If student answers aren't saving, e-asTTle will show a yellow banner at the top of the page. The banner will turn red when there has been disconnection for 2 minutes or more. Students can keep answering whatever they can, and e-asTTle will try and save answers. Don't refresh or close the window if a coloured banner is showing.



If the Internet has been down, use your professional judgement to decide if students' results should be [excluded](#).

#### Images not loading

If an image is missing, students will see an icon they can click to try and reload the image.  **INFO MISSING**  
[Click to reload](#)

#### A question doesn't load fully or looks strange

If something has loaded incorrectly, it can sometimes be corrected by selecting the 'Next' button then the 'Previous' button to reload the question.

Detailed troubleshooting information is available on the [help site](#). To report issues with online testing or for additional assistance, please contact the Education Service Desk: 0800 225 5428.