

Summary

Test Identification

Name	2016 MAT SW 1.3
Date Created	26 Jan 2016
Date Modified	24 Mar 2016
Subject	Mathematics
Status	SCORED
Sequence Number	568438
Total Test Time	57 minutes
Delivery Method	Onscreen

Curriculum Strand

Statistics	9	Algebra	10
Number Sense & Operations	10	Number Knowledge	10

Curriculum Level

2B	3	2P	1	2A	5
3B	7	3P	18	3A	13

Cognitive Processing

Surface	26	Deep	21
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Slider Settings

Strands		Level	
Number Knowledge	Most	Level 3	Most
Number Sense & Operations	Most		
Algebra	Most		
Statistics	Most		

Marking Guide : 2016 MAT SW 1.3

Q.No	Marking Key
1	b
2	b
3	c
4	b
5	c
6	b
7	b
8	c
9	a
10	a
11	c
12	b
13	d
14	d
15	c
16	c
17	c
18	a
19	a
20	a
21	d
22	d
23	a
24	b
25	c
26	d
27	c

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
28	b
29	c
30	b
31	c
32	a
33	c
34	d
35	c
36	d
37	b
38	a
39	b
40	c
41	c
42	b
43	e
44	c
45	d
46	2, 4, 1, 3 'all in order for one mark'
47	d

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.

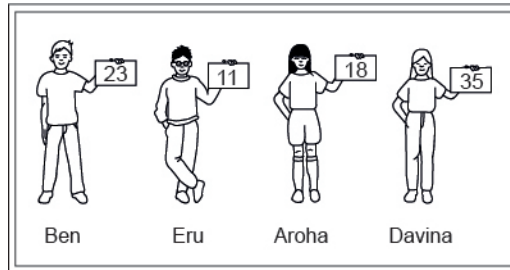
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Practice Questions

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?

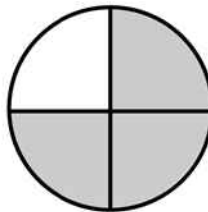


- Ben
- Eru
- Aroha
- Davina

P02. Complete this number pattern.

2, 4, _____, _____, 10

P03. What fraction of this circle is shaded?

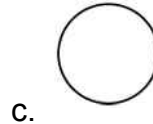
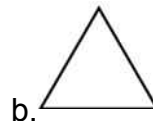




P04. Match the sentence with the correct shape.

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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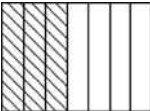



01. Which means seven hundred thousand five hundred ninety-two?

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

02. The census showed that three hundred and fifty-six thousand and ninety-seven people lived in Middletown.
Written as a number, that is

- 350 697
- 356 097
- 356 907
- 356 970

03. Which shows $\frac{3}{4}$ of the picture shaded?

- 
- 
- 
- 

04. Which set of numbers is in order from greatest to least?

- 147, 163, 234, 275
- 275, 234, 163, 147
- 275, 163, 234, 147
- 163, 275, 234, 147

05. By how much would the value of 5647 be decreased if the 5 were replaced by a 2?

- 3
- 300
- 3000
- 30 000

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

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

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

- 3 000
- 30 000
- 30
- 300 000

08. Which square is quarter shaded?



09. The numbers in the pattern decrease by the same amount each time.
What are the next three numbers in this pattern?

10, 8, 6, 4, 2, ____, ____, ____



0, -2, -4



0, -1, -2



0, 2, 4

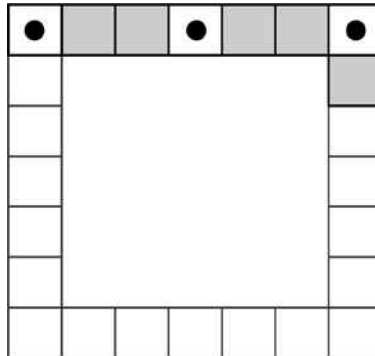


0, 1, 2

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10. The picture below shows how Kenta plans to create a tile border around the edge of a table.

If the pattern is continued all the way around the table, how many tiles with dots in the centre will be needed in all?



- 8
- 9
- 11
- 12

11. Tasi washed 4 cars in the morning at a church car wash. In the afternoon he washed 3 times as many.

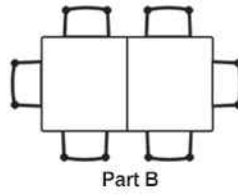
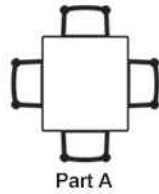
How many cars did he wash in the afternoon?

- 3
- 7
- 12
- 16

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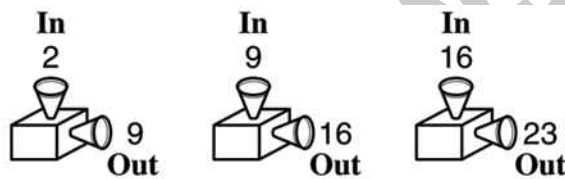
12. Thomas is setting up tables for a banquet. He knows that four people can sit around the table in Part A. When he puts two of these tables together, he can seat six people (Part B).

How many people can Thomas seat if he puts three tables together?



- 6
- 8
- 10
- 12

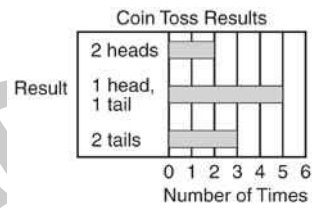
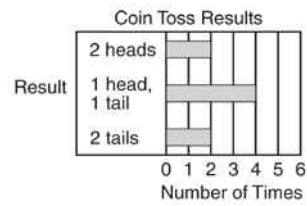
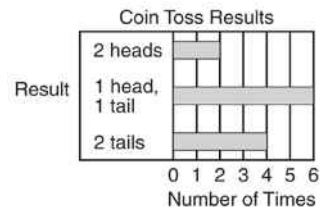
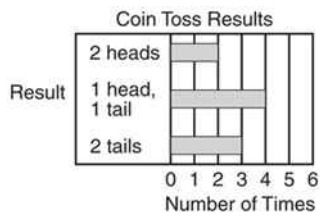
13. Which describes a rule that the number machine could be using?



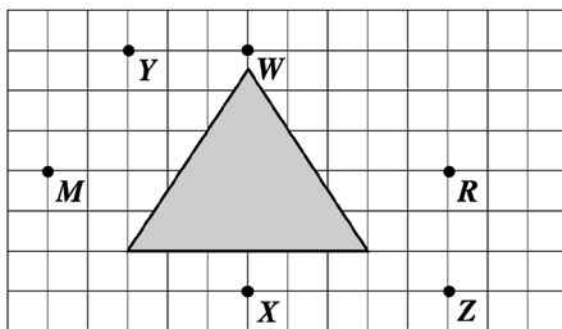
- Multiply by 4; add 1
- Divide by 4; add 1
- Subtract 7
- Add 7

14. Danny tossed 2 coins 10 times. The results are shown in the tally chart below. Which graph shows these results?

	//
	///
	///



15. Which two points appears to lie on the line of symmetry for the shaded figure shown on the grid below?



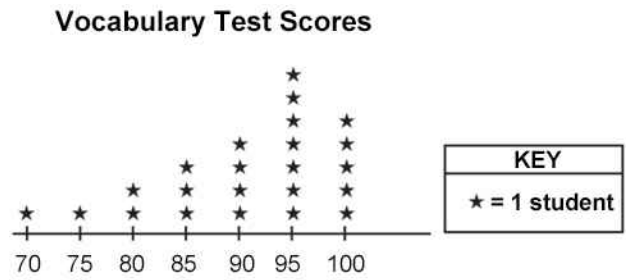
- Points *M* and *R*
- Points *R* and *Z*
- Points *W* and *X*
- Points *Y* and *Z*

16. A company has 6 big trucks. Each truck has 18 wheels. How many wheels is this in all?

- 24
- 96
- 108
- 116

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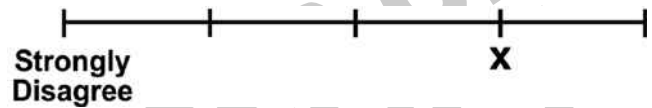
17. The line plot below shows how students scored on last week's vocabulary test. How many students scored 95 or higher on the test?



- 5 students
- 7 students
- 12 students
- 16 students

18. This is part of an opinion scale. The opinions Agree, Strongly Agree, Undecided and Disagree are missing.

Which opinion would be **BEST** located at **X**?



- Agree
- Strongly Agree
- Undecided
- Disagree

19. What is a rule used in the table to get the numbers in column *B* from the numbers in column *A*?

Column <i>A</i>	Column <i>B</i>
12	3
16	4
24	6
40	10

- Divide the number in column *A* by 4.
- Multiply the number in column *A* by 4.
- Subtract 9 from the number in column *A*.
- Add 9 to the number in column *A*.

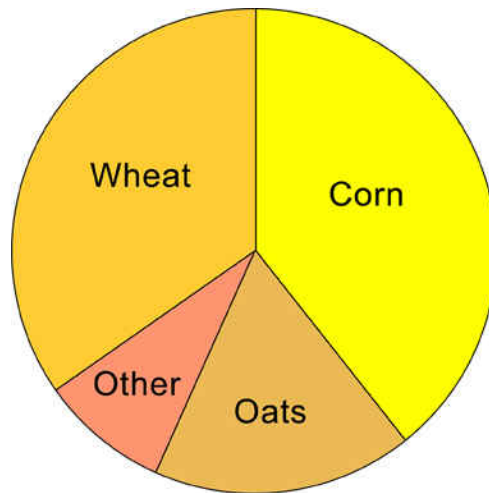
20. ____, 0.5, 0.8, ____, 1.4, 1.7

Which numbers, in order, are missing from this sequence?

- 0.2 and 1.1
- 0.2 and 1.2
- 0.4 and 0.9
- 0.4 and 1.0

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21. The graph shows the distribution of crops grown in a certain country. According to the information in the graph, which of these statements is **TRUE**?



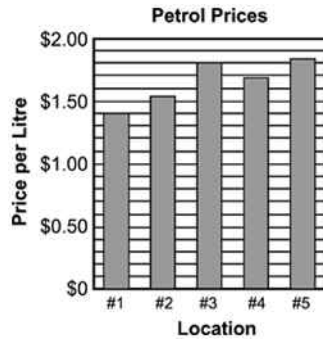
- More oats are grown than wheat.
- Corn is more than one-half the country's crop.
- Oats are more than one-third of the country's crop.
- The total crop of oats and wheat is greater than the corn crop.

22. The design shown below is on the front of Jamie's T-shirt. When she looks at herself in the mirror, what will she see?



-
-
-
-

23. On Saturday, Joseph compared the price of one litre of regular petrol at five different locations. The graph below shows the prices he recorded. Which is **closest** to the price of one litre of petrol at location #5?

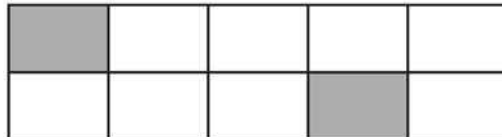


- \$1.82
- \$1.75
- \$1.53
- \$1.08

24. Which of these is another way to write the product 12×7 ?

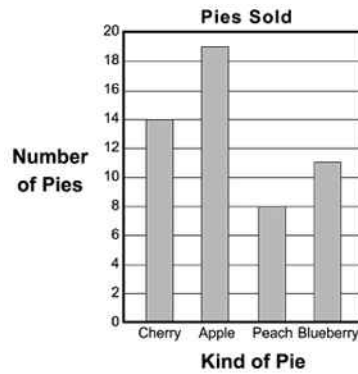
- $2 \times 3 \times 7$
- $3 \times 4 \times 7$
- $3 \times 6 \times 7$
- $6 \times 6 \times 7$

25. What percentage of the large rectangle below is shaded?



- 2%
- 4%
- 20%
- 25%

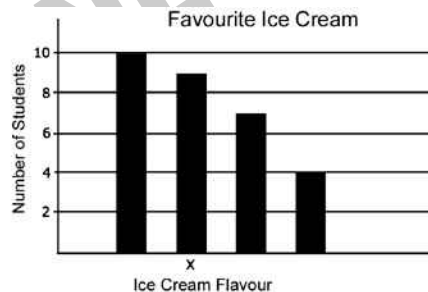
26. The bar graph shows the number of pies sold during a bake sale. How many more apple pies were sold than peach?



- 5
- 8
- 10
- 11

27. A teacher asked 30 students in her class the flavour of their favourite ice cream. The table shows how the teacher recorded the students' responses. In the bar graph beside the table, which ice cream flavour corresponds to the bar that is labelled X?

Favourite Ice Cream	Number of Students
Butterscotch	IIII
Chocolate	IIII IIII
Strawberry	IIII IIII
Vanilla	IIII II

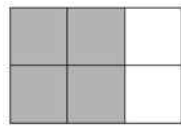


- Butterscotch
- Chocolate
- Strawberry
- Vanilla

28. Mario sells 80 pencils a day from his supply of 1000 pencils.
Which of the following is **TRUE**?

- He will run out of pencils in 7 days.
- He will have enough pencils to sell 80 each day for at least 10 days.
- He will have enough pencils to sell 80 each day for at least 80 days.
- He will have enough pencils to sell 80 each day for at least 100 days.

29. In this diagram, 2 out of every 3 squares are shaded.
Which diagram has 3 out of every 4 squares shaded?



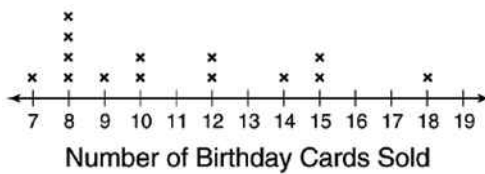
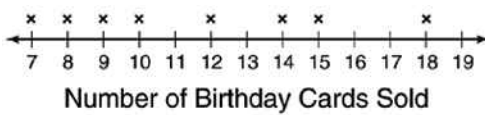
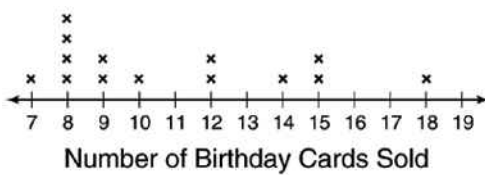
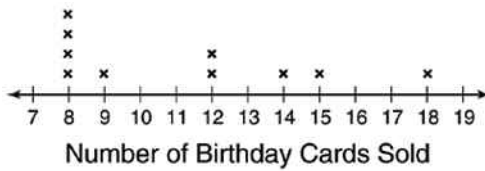
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-
-
-

30. The table shows the number of birthday cards a shop sold each day in a two-week period.

Which line plot displays this information?

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
15	8	9	8	10	12	18

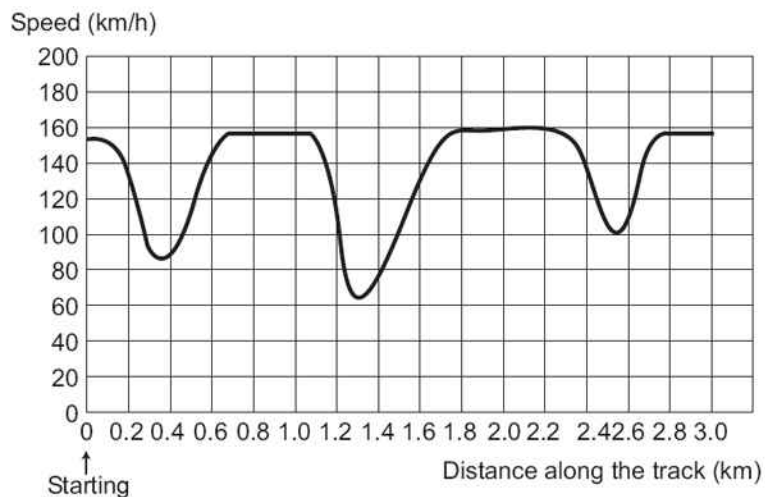
Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
7	9	8	12	8	15	14



Use the following information to answer question 31..

This graph shows the speed of a racing car along a flat 3 kilometre track during its second lap.

Speed of a racing car along a 3 km track (second lap)



31. Where was the lowest speed recorded during the second lap?

- At the starting line.
- At about 0.8 km.
- At about 1.3 km.
- Half way around the track.

End of Section

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32. The points scored by a school football team this season are:

6, 7, 11, 12, 22, 28, 28, 30, 33, 35

Which of the following stem-and-leaf plots correctly displays the data?



Stem	Leaf
0	6, 7
1	1, 2
2	2, 8, 8
3	0, 3, 5



Stem	Leaf
0	6, 7
1	1, 2
2	2, 8
3	0, 3, 5



Stem	Leaf
0	3
1	1
2	1, 2
3	3
5	3
7	0
8	2, 2

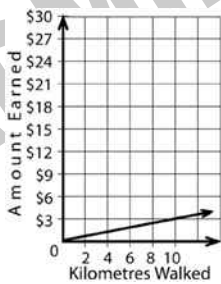
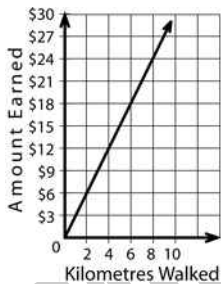
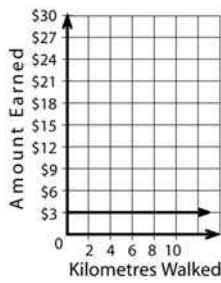
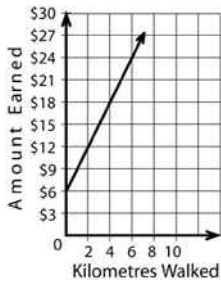


Stem	Leaf
0	3
1	1
2	1, 2
3	3
4	
5	3
6	
7	
8	2, 2

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33. Which graph **BEST** illustrates the relationship shown in this table?

Kilometres Walked	Amount Earned
2	\$6
4	\$12
6	\$18
8	\$24
10	\$30

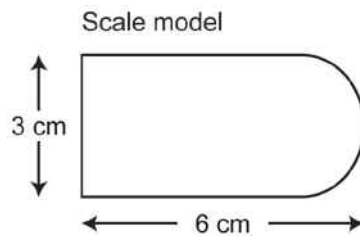


34. Which of the following rules could be used to make the number pattern shown below?
1024, 256, 64, 16

- Subtract 4
- Add 4
- Multiply by 4
- Divide by 4

35. Kim wants to build a full-size boat. Her scale model of the boat is 6cm long and 3cm wide.

If the width of the full-size boat will be 4 metres, what will be the length, in metres, of the full-size boat?



- 2 metres
- 4 metres
- 8 metres
- 12 metres

36. In one hour, Tracy walked 2.31 kilometres on a treadmill. Lisa walked 1.95 kilometres in the same amount of time.

How much farther did Tracy walk than Lisa?

- 1.66 kilometres
- 1.36 kilometres
- 0.46 kilometre
- 0.36 kilometre

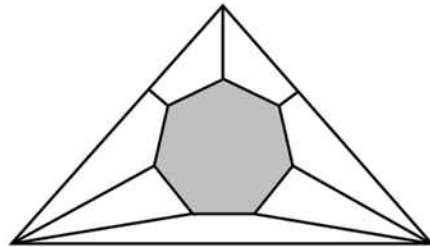
37. Which answer completes this subtraction?

$$\begin{array}{r} 13.63 \\ - 4.72 \\ \hline \end{array}$$

- 8.89
- 8.91
- 9.91
- 11.11

38. Look at the design below.

Which term identifies the shaded part in the centre of the design?



- Heptagon
- Pentagon
- Nonagon
- Decagon

39. Lola is making ice cream sundaes for her friends. They may choose between 3 kinds of ice cream and 2 kinds of toppings. The chart below shows the choices. What is the total number of combinations of 1 kind of ice cream and 1 kind of topping that Lola's friends can choose?

Choices for Sundaes

Ice Cream	Toppings
Chocolate	Sprinkles
Strawberry	Syrup
Vanilla	

- 5
- 6
- 9
- 10

40. 1 mile = 5280 feet
How many feet are in 15 miles?

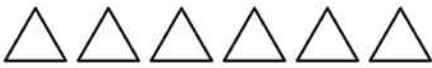

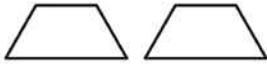

- 352
- 35 200
- 79 200
- 84 480
- 89 760

41. What is the greatest common divisor of 54, 36, and 24?

- 2
- 3
- 6
- 9

42. Which group of figures can **NOT** be made by cutting up the hexagon?



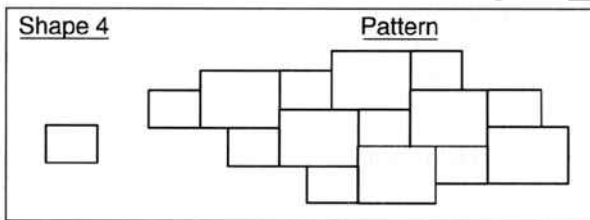
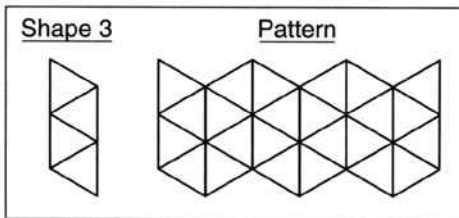
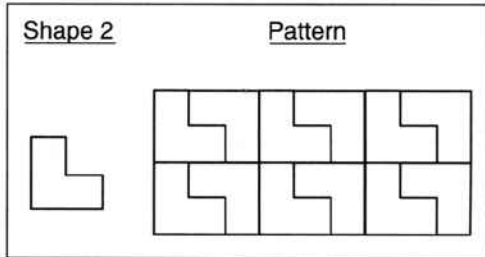
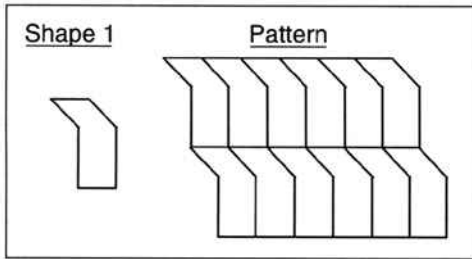
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43. If the value of the expression $x + 2$ is less than 12, which of the following could be a value of x ?

- 16
- 14
- 12
- 10
- 8

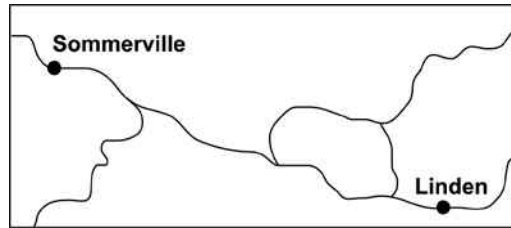
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44. Which pattern below is made by **reflecting** the shape shown?



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45. On the map shown, 1 unit of length represents 50 kilometres. The distance between Sommerville and Linden is 2.5 units. What is the actual distance between these towns?



- 2.5 km
- 20 km
- 52.5 km
- 125 km

46. A cold country records the temperature on 4 days.

Put the numbers 1, 2, 3, and 4 in the boxes to order the temperatures from the highest (1) to the lowest (4).

- 15.2°C
- 20.6°C
- 11.3°C
- 18.5°C

47. Kyle needs to buy brushes, nails, and paint to make bookshelves. He will sell the bookshelves for \$18 each.

What additional information does Kyle need to calculate the profit he will make from selling 10 bookshelves?

- The kind of wood
- The size of the nails and the colour of the paint
- The amount he will collect for selling 10 bookshelves
- His cost to make one bookshelf

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

- Windows, Mac or Chromebook
- Minimum window width: 1280 pixels
- Windows devices need Internet Explorer 9-11 or recent Edge, Chrome, Firefox
- Windows tablets/hybrids e.g., Surface Pro must have a keyboard attached
- Mac devices need recent Chrome or Safari

Tablet (9"+)

- iPads: iOS8+ with Safari
- Androids: Large tablet e.g., Samsung Galaxy Tab 4. Must have Android 4.4+ and latest Chrome
- Minimum window width: 768 pixels

iPad Minis and small Androids must not be used.

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

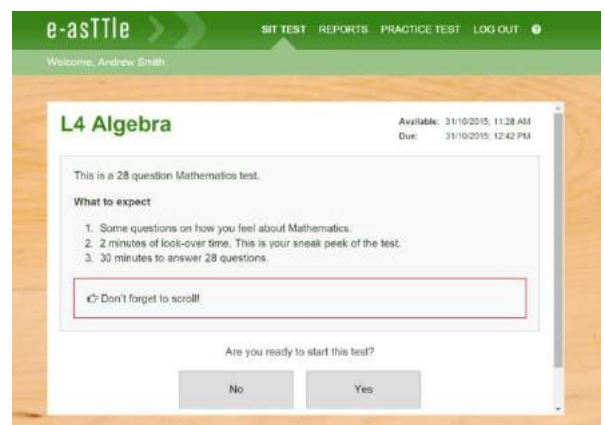
1. Check equipment

- 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.