

Summary

Test Identification

Name	2019 MAT SW 2.3
Date Created	20 May 2019
Date Modified	27 Aug 2019
Subject	Mathematics
Status	SCORED
Sequence Number	924722
Total Test Time	57 minutes
Delivery Method	Onscreen

Curriculum Strand

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

Curriculum Level

2B	5	2P	1	2A	5
3B	11	3P	15	3A	13
4B	0	4P	1	4A	0

Cognitive Processing

Surface	15	Deep	36
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Slider Settings

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

Marking Guide : 2019 MAT SW 2.3

Q.No	Marking Key
1	d
2	a
3	a
4	b
5	d
6	d
7	b
8	b
9	c
10	d
11	c
12	60 or sixty
13	d
14	b
15	c
16	d
17	c
18	b
19	c
20	c
21	b
22	a
23	d
24	c
25	c
26	a
27	a
28	a
29	c
30	d
31	d
32	c
33	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 (-).

Q.No	Marking Key
34	Indicates that the team performed very well. The points scored against them were confined very much to the lower end of the scale while the points they scored themselves were more widespread. 'Any equivalent answer for 1 mark.'
35	c
36	a
37	c
38	d
39	b
40	b
41	c
42	b
43	a
44	a
45	b
46	c
47	3.06, 3.6, 6.03, 6.3, 6.7
48	b
49	d
50	b
51	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.

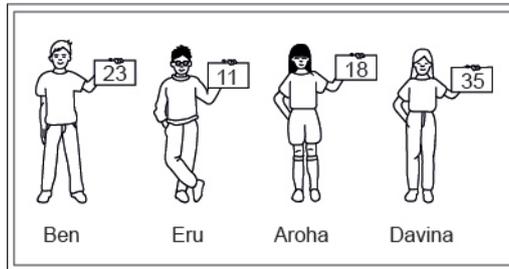
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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ADMINISTER ON SCREEN ONLY

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?

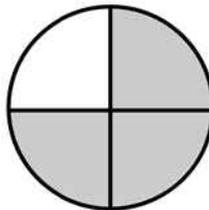


- Ben
- Eru
- Aroha
- Davina

P02. Complete this number pattern.

2, 4, _____, _____, 10

P03. What fraction of this circle is shaded?

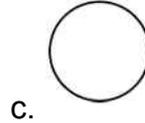
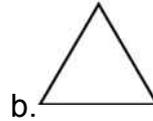




P04. Match the sentence with the correct shape.

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.

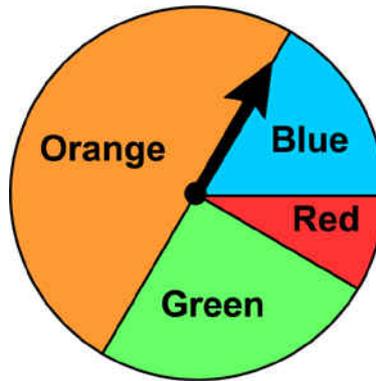
TRUE

FALSE

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

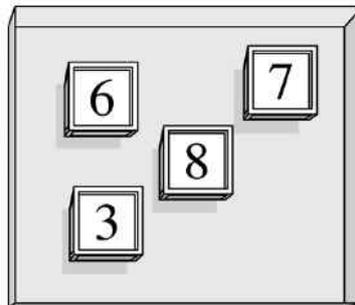
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01. The picture below shows how a game spinner looked before Tim spun it. When Tim spins the arrow on this spinner, on which space is the arrow **MOST LIKELY** to land?



- Red
- Blue
- Green
- Orange

02. What is the **least** number you could make using all the numbers on these blocks?



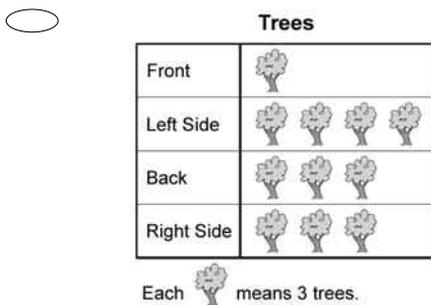
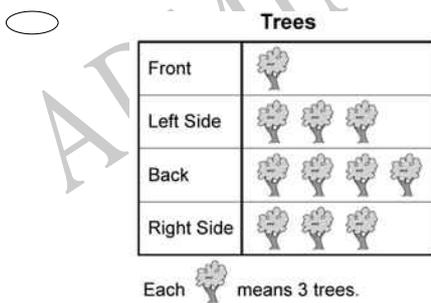
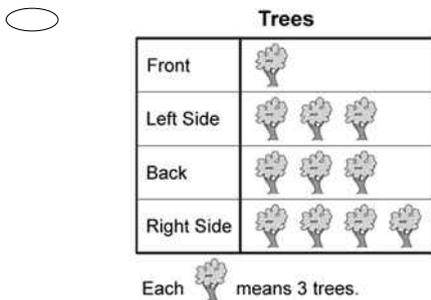
- Three thousand, six hundred and seventy-eight
- Three thousand, eight hundred and seventy-six
- Six thousand, three hundred and seventy-eight
- Six thousand, eight hundred and seventy-three

03. Jaleesa was born in 1962. When she was 20 years old, she decided to go to college. Five years later she started her own business. How can you find out what year Jaleesa started her business?

- 1962 + 20 + 5
- 1962 - 20 - 5
- 1962 + 20 - 5
- 1962 - 20 + 5

04. The list below shows the number of trees in each side of a house. Which graph correctly shows how many trees are planted in each place?

Place	Number of Trees
Front	3
Left Side	9
Back	12
Right Side	9



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

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

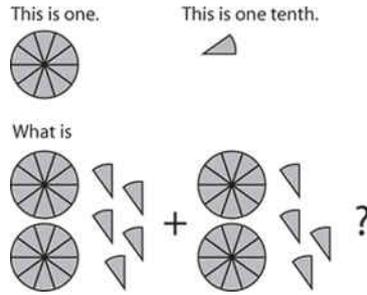
06. The graph shows the favourite sports of the students in Randy's class.
How many fewer liked soccer than netball?

Favourite Sports

Activity	Number of Votes
Cricket 	
Rugby 	
Netball 	
Soccer 	

- 3
- 4
- 5
- 6

07.

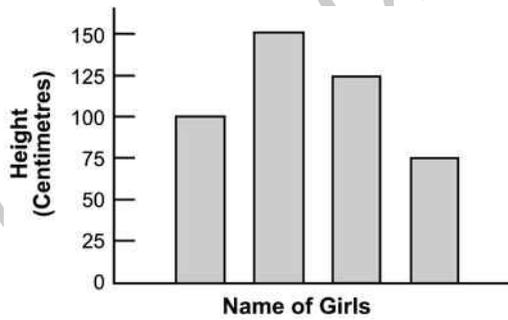


- 5.0
- 4.9
- 2.9
- 0.1

08. The graph shows the heights of four girls.

The names are missing from the graph. Debbie is the tallest. Amy is the shortest. Dawn is taller than Sarah.

How tall is Sarah?

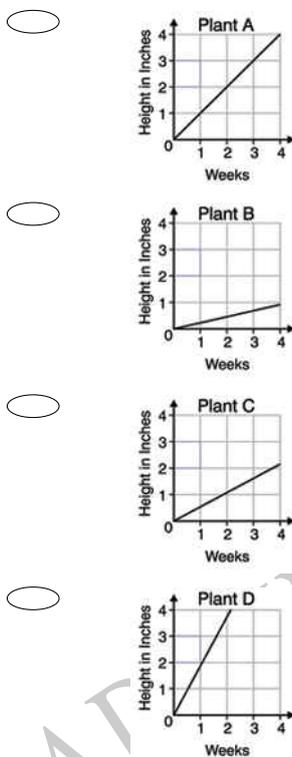


- 75 cm
- 100 cm
- 125 cm
- 150 cm

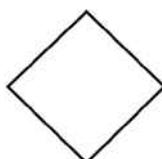
09. By how much would the value of 5647 be decreased if the 5 were replaced by a 2?

- 3
- 300
- 3000
- 30 000

10. Each graph below shows the growth of a different plant. Which graph represents the plant that grew the fastest?



11. Nell drew a figure with 4 square corners.
Which could be the figure she drew?



What is the value of the 6 in the following number(s) in question 12.?

12.

321 462 _____

End of Section

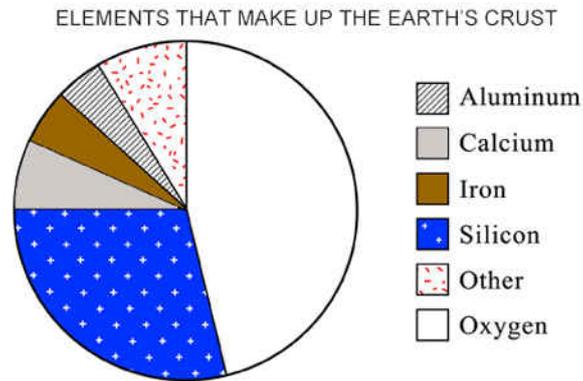
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13. Which is a model of a rectangular solid?



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14. According to the graph below, which element forms the second greatest portion of the earth's crust?

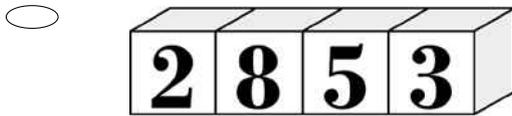
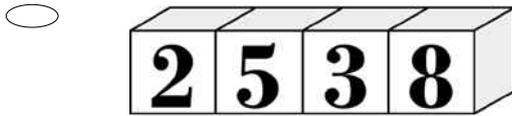
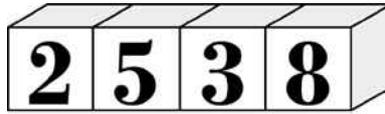


- Oxygen
- Silicon
- Aluminium
- Iron
- Calcium

15. On Friday, 1250 people visited the zoo. Three times as many people visited on Saturday than on Friday.
How many people visited the zoo on Saturday?

- 3615
- 3650
- 3750
- 3753

16. John made a number with the blocks shown below.
Sonya used the same blocks to make a number **less** than John's number.
Which could be the number Sonya made?



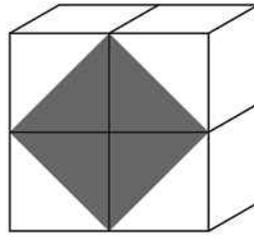
17. Look at this number sentence.

$$8 + \square = 15$$

Which could you do to find the missing number?

- Add 8 and 15
- Add 15 and 7
- Subtract 8 from 15
- Subtract 7 from 8

18. Look at the four blocks stacked below.
What shape is formed by the shaded parts of the blocks?



- A triangle
- A square
- A pentagon
- A hexagon

19. A store sells 168 tapes each week.
How many tapes does it sell in 24 weeks?

- 7
- 192
- 4032
- 4172

20. $(150 \div 3) + (6 \times 2) =$

- 10
- 58
- 62
- 112

21. If \square represents the number of newspapers that Lee delivers each day, which of the following represents the total number of newspapers that Lee delivers in 5 days?

- $5 + \square$
- $5 \times \square$
- $\square + 5$
- $(\square + \square) \times 5$

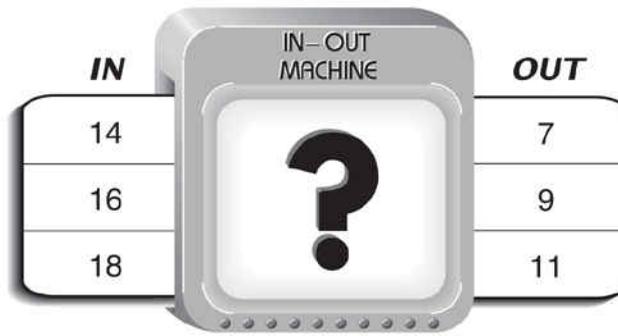
22. If the pattern shown below continues, what will be the next number?
8, 13, 11, 16, 14, . . .

- 19
- 18
- 12
- 9

23. Which number is five hundred and three thousand, four hundred and seventy?

- 500 347
- 530 470
- 503 407
- 503 470

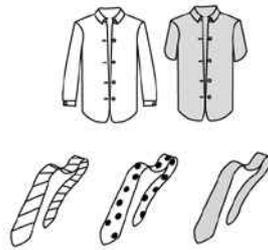
24. What is the rule that changes *In* numbers to *Out* numbers?



- Divide the In number by 2.
- Add 7 to the In number.
- Subtract 7 from the In number.
- Subtract 6 from the In number.

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25. Roland has these shirts and ties to choose from.
Which shows all the different ways he can combine one tie and one shirt?



- Three combinations: (white shirt, striped tie), (white shirt, dotted tie), and (grey shirt, solid tie).
- Four combinations: (white shirt, striped tie), (white shirt, dotted tie), (white shirt, solid tie), and (grey shirt, striped tie).
- Six combinations: (white shirt, striped tie), (white shirt, dotted tie), (white shirt, solid tie), (grey shirt, striped tie), (grey shirt, dotted tie), and (grey shirt, solid tie).
- Five combinations: (white shirt, striped tie), (white shirt, dotted tie), (white shirt, solid tie), (grey shirt, striped tie), and (grey shirt, dotted tie).

26. The sum of a number (n) and 14 is 72.
Which equation shows this relationship?

- $14 + n = 72$
- $72n = 14$
- $14 - n = 72$
- $72 + n = 14$

27. Wendy wants to take a survey to determine which flavour of ice cream is the **MOST** popular at her school. Which of the following methods is the **BEST** way for her to choose a random sample of the students at her school?

- Selecting ten students from each home room
- Selecting members of the girls' softball team
- Selecting members of the boys' basketball team
- Selecting students who like her favourite flavour of ice cream

28. Janet took a survey of her class. She asked each student how he or she gets to school. Her results are shown below. According to her results, which statement below is **NOT** true?

How Students Get to School

Ride a Bike	
Take the Bus	
Go by Car	
Walk	

- More students go by car than take the bus.
- More students ride a bike and walk than go by car.
- More students take the bus than either walk or go by car.
- More students ride a bike to school than walk.

29. One number in the sequence is wrong.

22	26	30	36	38	42
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What change should be made to correct this sequence?

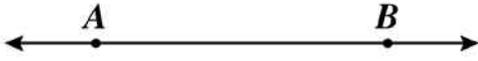
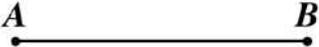
- 26 should be replaced by 24
- 26 should be replaced by 28
- 36 should be replaced by 34
- 42 should be replaced by 40

30. Which is a word problem for the number sentence?

$$8 + 6 =$$

- Jon baked 8 pies and gave 6 of them away.
How many pies does he have left?
- Theresa has 8 fish bowls. He has 6 fish in each bowl.
How many fish are there in all?
- Mai found 8 plants. She counted 6 flowers on each.
How many flowers did she count?
- Leon put 8 bananas and 6 apples in a fruit bowl.
How many pieces of fruit did he put in the bowl?

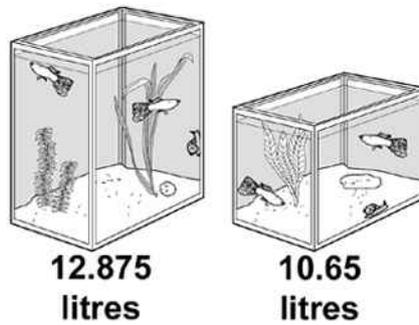
31. Which is a picture of only line segment AB ?

- 
- 
- 
- 

32. Students in Mrs Johnson's class were asked to tell why $\frac{4}{5}$ is greater than $\frac{2}{3}$.
Whose reason is **BEST**?

- Kelly said, " Because 4 is greater than 2. "
- Keri said, " Because 5 is larger than 3. "
- Kim said, " Because $\frac{4}{5}$ is closer than $\frac{2}{3}$ to 1. "
- Kevin said, " Because $4 + 5$ is more than $2 + 3$. "

33. Hannibal is comparing two kinds of aquariums. The first aquarium can hold a maximum of 12.875 litres of water. The second aquarium can hold a maximum of 10.65 litres of water.
How many more litres of water can the first aquarium hold than the second?



- 1.225
- 1.181
- 2.010
- 2.225

Use the following information to answer question 34..

This back-to-back stem-and-leaf graph shows the number of points a rugby league team scored and the number of points scored against them in one season.

Points against		Points scored
6, 6, 4, 4, 0, 0	0	6
8, 8, 6, 4, 4, 3, 2, 2, 2, 2, 0	1	2, 4, 4, 8, 8
9, 8, 6, 4, 2, 2, 2, 2, 0	2	0, 4, 4, 6, 6, 7, 8
	2	3
	3	0, 2, 6, 8, 8
	4	0, 2, 2
	5	0, 4, 4, 6
	6	2, 6,

34. Using the information in the back-to-back stem-and-leaf graph how do you think the team performed in this season?

End of Section

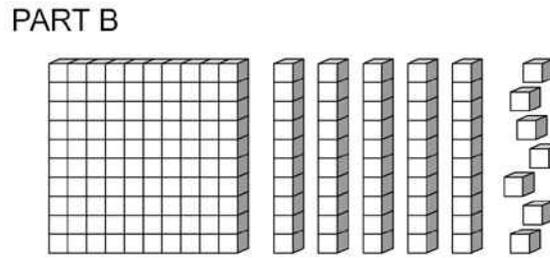
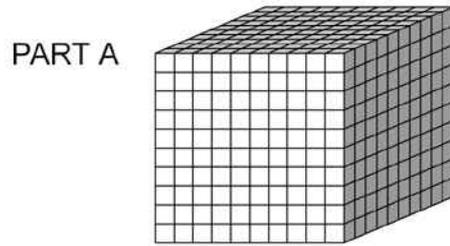
35. Iris is writing music for a video game. The picture below shows how a pattern of 5 notes repeats while the game is played. If the pattern continues, what kind of note will be the 12th note played?



- -
 -
 -
- 

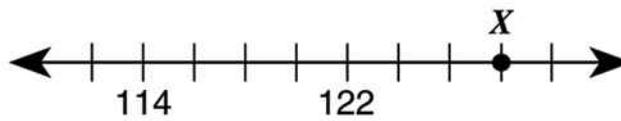
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36. Part A represents the number 1.
 What number is represented by Part B?



- 0.157
- 0.175
- 0.517
- 0.571

37. Which **BEST** describes the location of point X on the number line shown below?



- 134
- 131
- 128
- 125

38. Which statement below is **TRUE**?

Student Ski Lift Passes
Sold at Jiminy Peak

Day of the Week	Number of Passes Sold
Thursday	58
Friday	163
Saturday	200
Sunday	175
Monday	22

- More student passes were sold on Friday than on Sunday.
- Altogether, more than 500 student passes were sold on Saturday and Sunday.
- More than 800 passes were sold during this five-day period.
- More student passes were sold on Thursday and Friday than on Sunday and Monday.

39. Helen made a spinner divided into four parts.

Helen then numbered the parts 1, 2, 3 and 4.

Two of the parts had the same area.

She used the spinner 100 times and recorded the results in a table.

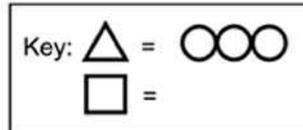
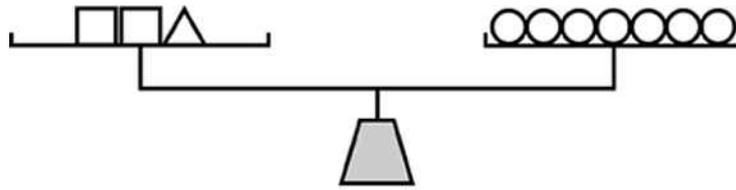
From Helen's results, the two numbered parts on the spinner that are **MOST** likely to have the same area are

Number showing on the spinner	1	2	3	4
Frequency	26	16	24	34



- 1 and 2.
- 1 and 3.
- 2 and 4.
- 3 and 4.

40. The squares, triangles and circles on the scale below make it balance exactly. In the Key, how many circles are needed to balance with the square?



- \circ
- $\circ\circ$
- $\circ\circ\circ$
- $\circ\circ\circ\circ$

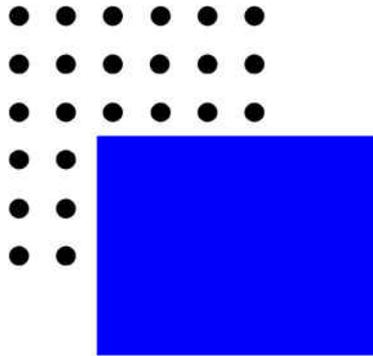
41. Every Sunday in autumn, Martin has to do 1 outside job and 1 inside job. The jobs are listed below.

How many different combinations of 1 inside job and 1 outside job can Martin make?

Inside Jobs	Outside Jobs
vacuum	rake
wash dishes	weed
dust	

- 3
- 5
- 6
- 9

42. The circles are in a regular square pattern. Some of the circles are hidden by the card. What fraction of the circles are hidden?



- $\frac{1}{2}$
- $\frac{1}{3}$
- $\frac{1}{4}$
- $\frac{1}{5}$

43. What is the solution to the problem below?

$$120 \div 30$$

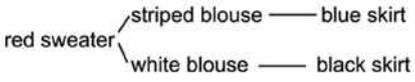
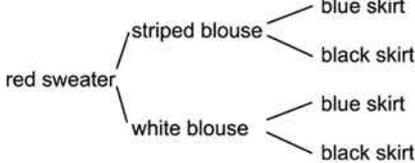
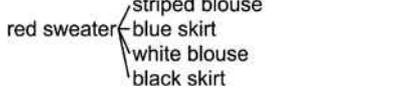
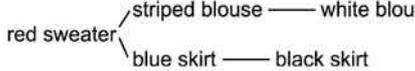
- 4
- 40
- 44
- 400

44. Which symbol goes in the blank to make the sentence **TRUE**?
7 centimetres ___ 7 metres

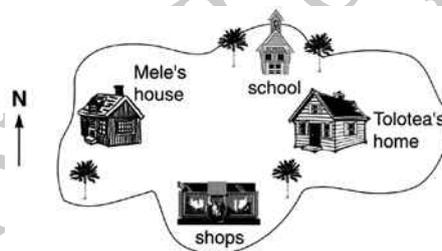
- <
- >
- =
- x

45. For a trip, Tyler packed one red sweater, one striped blouse, one white blouse, one blue skirt, and one black skirt.

Which shows all the possible ways that she could combine one sweater, one blouse, and one skirt?

- 
- 
- 
- 

46. Tolotea walked across the island from her home to Mele's house. Tolotea then walked from Mele's house to the shops. Tolotea had walked



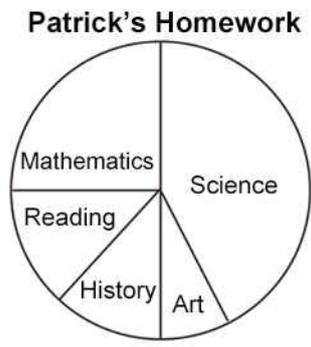
- east and then south-east.
- east and then south-west.
- west and then south-east.
- west and then south-west.

47. Write these numbers in the correct order from lowest to highest.

6.7, 6.3, 3.6, 3.06, 6.03

Lowest _____ Highest

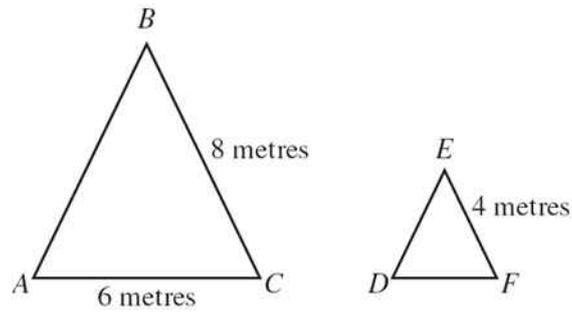
48. The pie chart below shows the portion of time Patrick spent on homework in each subject last week.
 If Patrick spent 2 hours on Mathematics, about how many hours did he spend on homework altogether?



- 4
- 8
- 12
- 16

49. Which shows 1.03 shaded?

50. $\triangle ABC$ is similar to $\triangle DEF$.
What is the length of DF ?



- 2 metres
- 3 metres
- 5 metres
- 10 metres

51. The first five terms in a geometric sequence are shown below.
2, 8, 32, 128, 512, . . .
What is the next term in the sequence?

- 896
- 1024
- 1536
- 2048

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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 up-to-date Edge, Chrome, Firefox or IE11
- Windows tablets/hybrids e.g., Surface Pro must have a keyboard attached
- Mac devices need recent Chrome or Safari

Large Tablets (9" +)

- iPads: iOS 10+ with Safari
- Androids: Large tablet e.g., Samsung Galaxy Tab 4. Must have Android 5+ 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

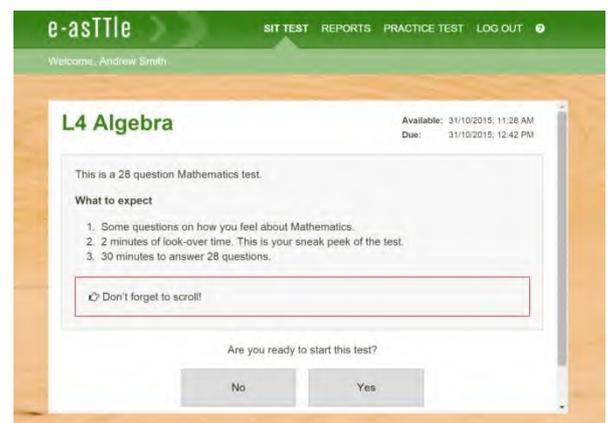
1. Check equipment

- 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.