

Summary

Test Identification

Name	2021 MAT SW 3.2
Date Created	16 Sep 2021
Date Modified	05 Nov 2021
Subject	Mathematics
Status	ACCEPTED
Sequence Number	1164853
Total Test Time	59 minutes
Delivery Method	Onscreen

Curriculum Strand

Number Sense & Operations	15	Number Knowledge	11
Statistics	10	Algebra	10

Curriculum Level

2B	13	2P	12	2A	12
3B	2	3P	2	3A	3

Cognitive Processing

Surface	30	Deep	17
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Slider Settings

Strands		Level	
Number Knowledge	Most	Level 2	Most
Number Sense & Operations	Most	Level 3	Few
Algebra	Most		
Statistics	Most		

Marking Guide : 2021 MAT SW 3.2

Q.No	Marking Key
<u>1</u>	Green
<u>2</u>	Black
<u>3</u>	16
<u>4</u>	4
<u>5</u>	c
<u>6</u>	a
<u>7</u>	b
<u>8</u>	b
<u>9</u>	c
<u>10</u>	d
<u>11</u>	c
<u>12</u>	c
<u>13</u>	c
<u>14</u>	a
<u>15</u>	b
<u>16</u>	c
<u>17</u>	b
<u>18</u>	7 'Dollar sign is given, so not required'
<u>19</u>	c
<u>20</u>	c
<u>21</u>	d
<u>22</u>	a
<u>23</u>	b
<u>24</u>	b
<u>25</u>	c
<u>26</u>	c
<u>27</u>	b
<u>28</u>	b
<u>29</u>	b
<u>30</u>	a
<u>31</u>	$\$10.00 + \$5.00 + 50c + 20c$ 'Accept any equivalent.'

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
<u>32</u>	3 x \$5.00 +50c +2 x10c 'Accept any equivalent. Note this answer must be different to previous question for mark.'
<u>33</u>	c
<u>34</u>	Jan subtracted the numbers when she should have added them 'Any equivalent answer for 1 mark.'
<u>35</u>	a
<u>36</u>	b
<u>37</u>	d
<u>38</u>	a
<u>39</u>	a
<u>40</u>	a
<u>41</u>	b
<u>42</u>	61 408
<u>43</u>	2x27=54 (peaches)
<u>44</u>	-2
<u>45</u>	Double previous number (or equivalent)
<u>46</u>	a = 50 b = 9.07 'Both required for 1 mark. Must be in order stated in Answer Key.'
<u>47</u>	First goes to the person with the highest jump so Katene is correct because her height is greatest while Leati"s is lower. 'Any equivalent answer for 1 mark.'

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 family/whānau 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.

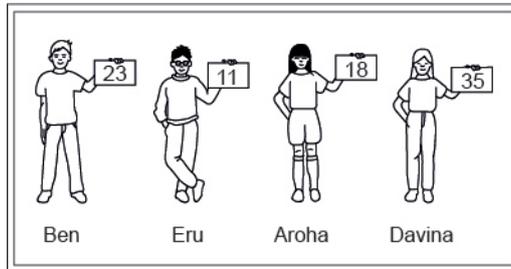
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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ADMINISTER ON SCREEN ONLY

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?

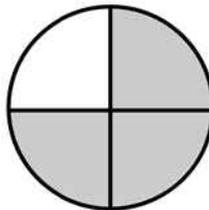


- Ben
- Eru
- Aroha
- Davina

P02. Complete this number pattern.

2, 4, _____, _____, 10

P03. What fraction of this circle is shaded?

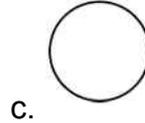
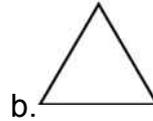




P04. Match the sentence with the correct shape.

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

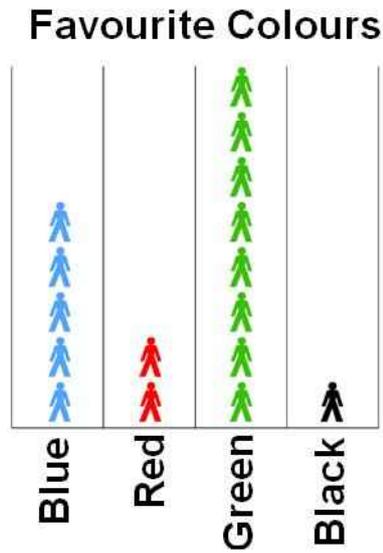
FALSE

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

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ONLY

Use the following information to answer questions 01 to 04.

This pictogram shows the favourite colours for children in a class.



01. Which colour is the **MOST** popular?

02. Which colour is the **LEAST** popular?

03. How many children were asked to tell their favourite colour?

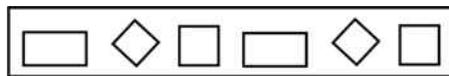
04. How many more children liked blue than black?

End of Section

05. Which of the following is another way to write **three hundred and sixteen thousand, four hundred and thirty-seven**?

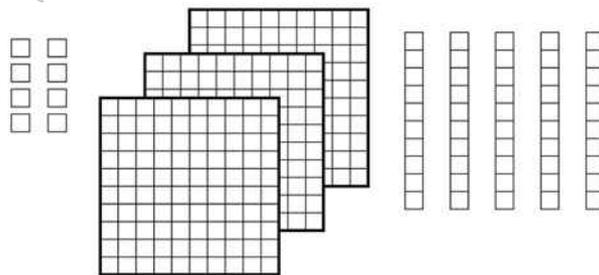
- 300 420
- 306 347
- 316 437
- 366 430

06. What are the next four figures in the pattern below?



-
-
-
-

07. 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?



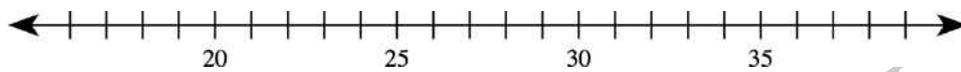
- 16
- 358
- 538
- 835

08. Tony had \$20. He paid \$8 for a ticket to a baseball game. At the game, he bought a hot dog for \$3.

What amount of money did Tony have left?

- \$5
- \$9
- \$11
- \$15

09. How far is 37 from 25?



- 8
- 11
- 12

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10. The students in Mrs Kim's class are voting for the booth they want to have at the fun fair.

Six students want face painting. Five students want a relay race. Twelve students want the ring toss.

Which tally chart shows these results?



Fun Fair	
Face Painting	
Relay Race	
Ring Toss	

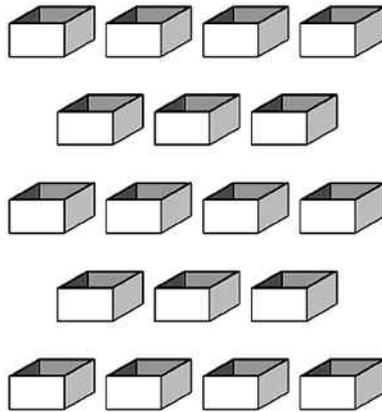
Fun Fair	
Face Painting	
Relay Race	
Ring Toss	

Fun Fair	
Face Painting	
Relay Race	
Ring Toss	

Fun Fair	
Face Painting	
Relay Race	
Ring Toss	

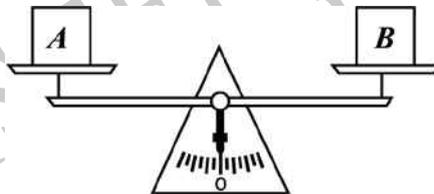
WATER ON SCREEN ONLY

11. Ben puts 5 cookies in each box for the bake sale.
How many cookies did he use in all?



- 18
- 45
- 90
- 95

12. Box A weighs 5 kilograms.
How much does box B weigh?



- 1 kg
- 3 kg
- 5 kg
- 7 kg

13. The shapes below are arranged in a pattern.
Which set of shapes is arranged in the same pattern?



- ★□★□★★□□★★□□
- ★□□★□□□★□□□□
- ★□★★□□★★★□□□
- ★★□★□□★★□★

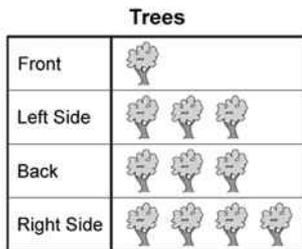
14. The city Elizabeth lives in has a population of 320 564.
Which of the following shows 320 564 in words?

- Three hundred and twenty thousand five hundred and sixty-four
- Three hundred and twenty-five thousand and sixty-four
- Three hundred and two thousand five hundred and sixty-four
- Three hundred and two thousand six hundred and fifty-four

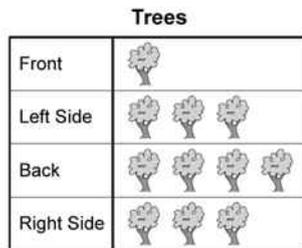
ADMINISTER ONLY SCREEN

15. 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?

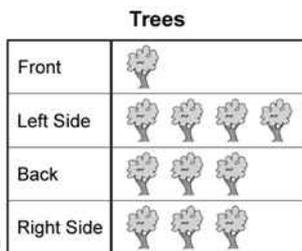
Place	Number of Trees
Front	3
Left Side	9
Back	12
Right Side	9



Each  means 3 trees.



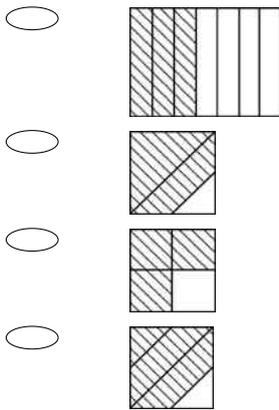
Each  means 3 trees.



Each  means 3 trees.

WATER ONLY
 SCREEN
 ONLY

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



17. Which number belongs in the box below?

$$\begin{array}{r} 57 \\ - \square \\ \hline 21 \end{array}$$

- 28
- 36
- 46
- 78

18. Round this sale item to the nearest dollar.



\$ _____

19. The pictogram below shows the amount of money each Year 4 class raised for an animal shelter.

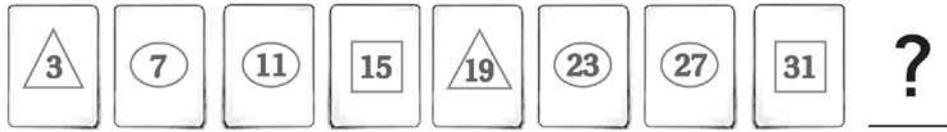
Mr Powell's class raised \$20 and Mr Roper's class raised \$30.
How much does each dollar symbol represent?

Class	Amount Raised
Ms. Smith	\$ \$ \$ \$ \$ \$
Mr. Powell	\$ \$ \$ \$
Ms. Carly	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Mr. Roper	\$ \$ \$ \$ \$ \$

- \$1
- \$4
- \$5
- \$20

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20. Look at the cards arranged in the pattern below. If the pattern continues, what will the next card be?

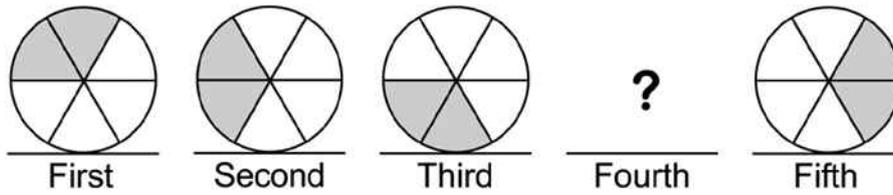


-
-
-
-

21. Maria skip-counted by 3's to make a number pattern. Which of these could be Maria's number pattern?

- 12, 15, 24, 30
- 12, 18, 21, 24
- 12, 15, 20, 24
- 12, 15, 18, 21

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

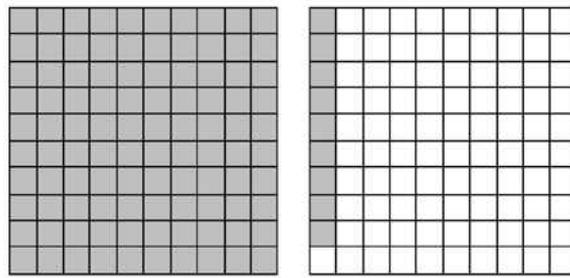


-
-
-
-

23. There are 60 pieces of art paper and 42 children.
If each child gets one piece of art paper, how many pieces will be left for another project?

- 9
- 18
- 27
- 42

24. What number is represented by the shaded part of the figure below?



- 0.19
- 1.09
- 1.19
- 2.09

25.

$7 \times 8 = \star$ The value of the \star is

- 49
- 54
- 56
- 58

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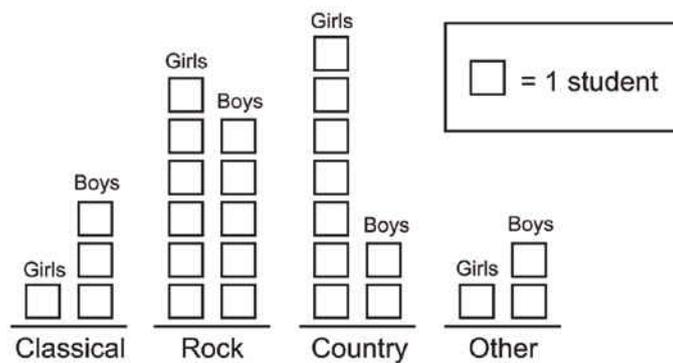
26. The table shows the amount of time Karen spent practising ice skating. If the pattern in the table continues, how many minutes will Karen spend practising on Saturday?

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

- 95
- 100
- 105
- 110

27. Each boy and girl in the class voted for his or her favourite kind of music. The results are below.

Which kind of music did **MOST** students prefer?



- Classical
- Rock
- Country
- Other

28. 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?



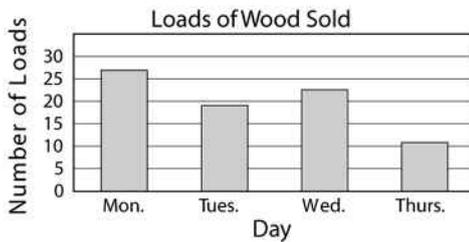
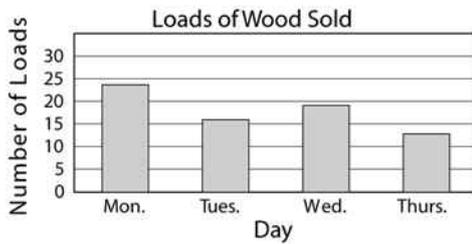
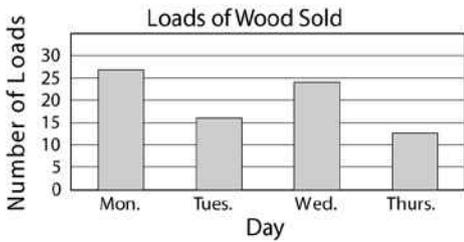
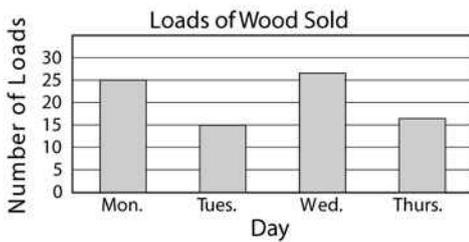
-
-
-
-

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29. The table below shows the number of loads of wood Mr Clark sold each day for four days.

Which of the following shows this information correctly graphed?

Day	Number of Loads
Monday	27
Tuesday	16
Wednesday	24
Thursday	13

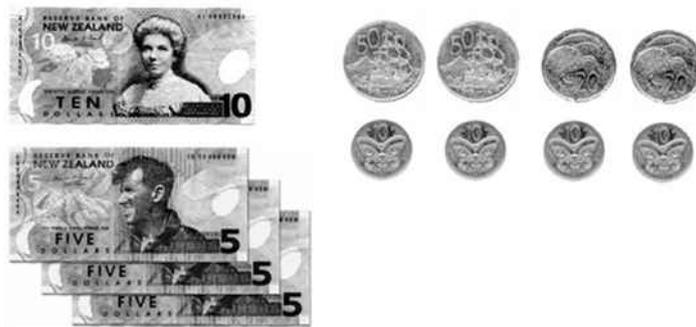


30. A number has nine ones, six tens, and eight hundreds.
What is the number?

- 869
- 896
- 968
- 986

Use the following information to answer questions 31 to 32.

Johnny has this cash in his wallet:



Johnny purchases a rugby ball for \$15.70. What are two different combinations of notes and coins he could use to pay for the ball?

31. One combination for \$15.70 is

32. A different combination for \$15.70 is

33. Which of the following decimal lists is in order from *least* to *greatest*?

- 3.5, 3.1, 2.9, 2.4
- 2.9, 3.5, 2.4, 3.1
- 2.4, 2.9, 3.1, 3.5
- 3.1, 2.4, 3.5, 2.9

34. $1000 + 10$.

Jan did this problem on her calculator.

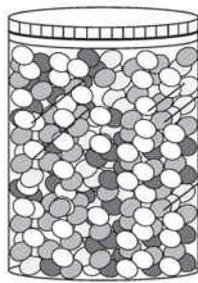
She got this answer.

This answer is incorrect.

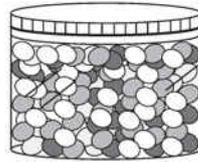


What mistake did Jan make?

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



Jar A = 496 jelly beans

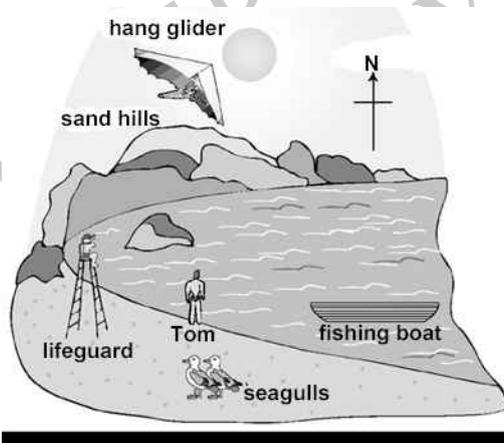


Jar B = ? jelly beans

- 250
- 300
- 200
- 350

Use the following information to answer question 36..

Tom was at the beach looking at the sand hills.

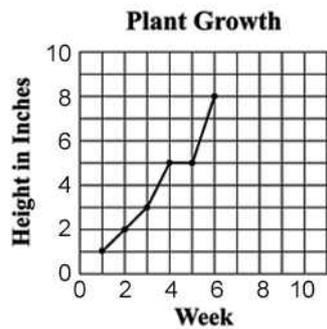


36. If Tom makes a quarter turn clockwise, what will he see?

- lifeguard
- fishing boat
- sand hills
- seagulls

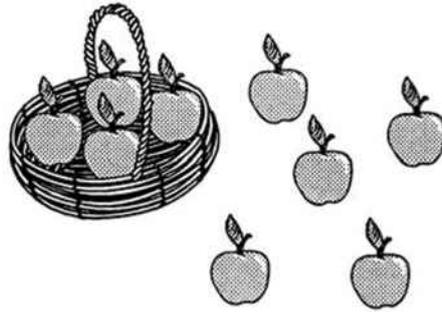
End of Section

37. Between which two weeks did the plant show the **greatest** increase in height?



- Weeks 1 and 2
- Weeks 3 and 4
- Weeks 4 and 5
- Weeks 5 and 6

38. What fraction of the apples is in the basket?



- $\frac{4}{9}$
- $\frac{5}{9}$
- $\frac{4}{5}$
- $\frac{5}{4}$

39. The picture graph shows the numbers of 4 different kinds of plants Mr Swan bought on Saturday.

How many pepper plants did Mr Swan buy?

Plants Bought

Kind of Plant	Number Bought
Peppers	
Tomatoes	
Beans	
Carrots	

Key  = 5 plants.

- 15
- 10
- 8
- 3

40. The answer to $12 - (3 \times 2) - 1$ is

- 5
- 7
- 9
- 17

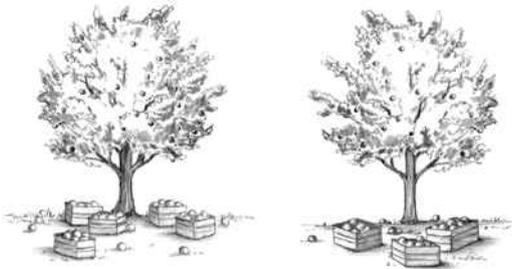
41. Which problem can be solved using the number sentence in the box below?

$29 \times 2 = ?$

- Sharon saw 29 boats on the lake and 2 boats at the dock. How many boats is that in all?
- A parking lot has 29 cars in each row. There are 2 rows of cars. How many cars is that all together?
- Mrs Jensen had 29 rulers. She gave 2 to her students. How many rulers did she have left?
- Travis had 29 cookies. If he puts 2 cookies in each lunch bag, how many lunch bags will he use?

42. Write sixty-one thousand, four hundred and eight in digits.

43. Francis and Jim picked peaches.
Francis filled 5 boxes and Jim filled 3.
Each box holds 27 peaches.



How many more peaches did Francis pick than Jim?

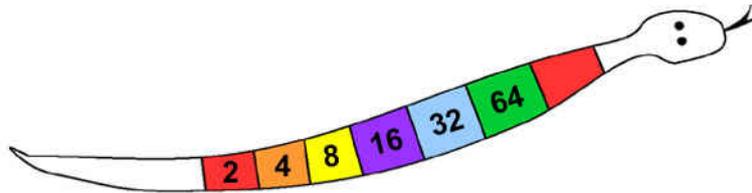
_____ more peaches

44. At 4:00pm the temperature was 12°C .
By 10:00pm, the temperature had dropped by 14°C .

What was the temperature at 10:00pm?

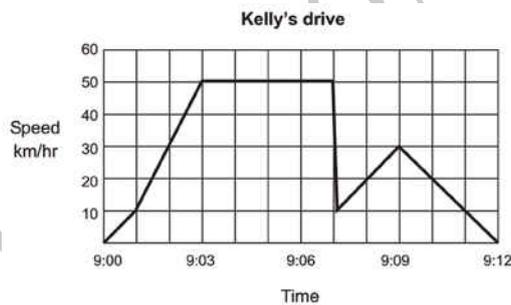
_____ $^{\circ}\text{C}$

45. What is the rule for this number pattern?



Rule: _____

46. Kelly went for a drive in her car. During the drive, a cat ran in front of the car. Kelly slammed on the brakes and missed the cat. Slightly shaken, Kelly decided to return home by a shorter route. The graph below is a record of the car's speed during the drive.



What was the maximum speed (in km/hr) of the car during the drive? _____

What time was it when Kelly slammed on the brakes to avoid the cat? _____

47. At the school athletics carnival, six students made the final of the high jump competition. The table below shows the results.

Leati says she came first. Katene disagrees, she says she came first.

Name	Mary	Harriet	Pita	Katene	Sally	Leati
Height	1.036m	1.207m	1.306m	1.35m	1.3m	1.342m

Decide who came first and explain your answer.

ADMINISTER ON SCREEN ONLY

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

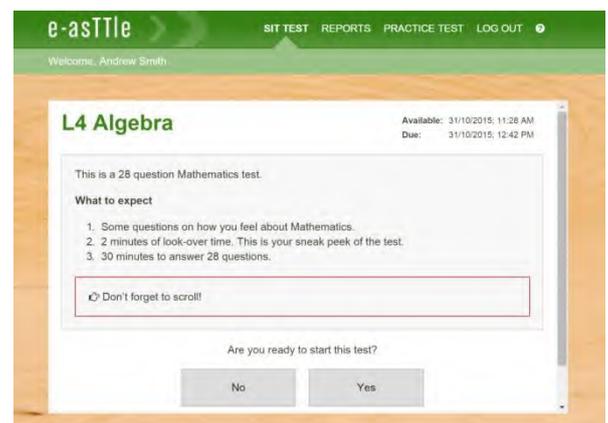
1. Check equipment

- 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.