

Summary

Test Identification

Name	2022 MAT SW 1.2
Date Created	07 Jan 2022
Date Modified	13 Apr 2022
Subject	Mathematics
Status	SCORED
Sequence Number	1195257
Total Test Time	57 minutes
Delivery Method	Onscreen

Curriculum Strand

Number Sense & Operations	17	Number Knowledge	9
Statistics	9	Algebra	10

Curriculum Level

2B	15	2P	6	2A	16
3B	0	3P	3	3A	4

Cognitive Processing

Surface	27	Deep	18
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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 : 2022 MAT SW 1.2

Q.No	Marking Key
<u>1</u>	34
<u>2</u>	b
<u>3</u>	a
<u>4</u>	14, 42, 50, 87, 98 'Allow 1 missed out or transposed number as long as this does not affect order of values'
<u>5</u>	b
<u>6</u>	c
<u>7</u>	b
<u>8</u>	d
<u>9</u>	b
<u>10</u>	a
<u>11</u>	a
<u>12</u>	a
<u>13</u>	b
<u>14</u>	b
<u>15</u>	c
<u>16</u>	Three-thousand four-hundred and sixty-one
<u>17</u>	a
<u>18</u>	c
<u>19</u>	b
<u>20</u>	b
<u>21</u>	c
<u>22</u>	b
<u>23</u>	b
<u>24</u>	b
<u>25</u>	c
<u>26</u>	b
<u>27</u>	T + 8 and T + 10 (both for 1 mark) 'Must be in order stated in Answer Key.'
<u>28</u>	b
<u>29</u>	2306
<u>30</u>	c
<u>31</u>	a

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
32	c
33	d
34	c
35	a
36	b
37	\$1.30
38	Bob
39	Shape N because it received the most votes, it also has the most even spread (or equivalent answer) 'name a shape plus a valid explanation- both for one mark'
40	Subtract 4
41	a
42	Sub-Saharan Africa
43	The table shows that as height increases so too does the highest jump. 'Any equivalent answer for 1 mark.'
44	4.80
45	27 (miles) 'Units not required'

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. It is very important to me to be good at maths.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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02. I try to get more maths answers right than my friends.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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03. I like hard, challenging maths.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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04. I do as much school work as possible in maths.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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05. I like to help my friends with their maths school work.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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06. I like it when the maths examples are hard.

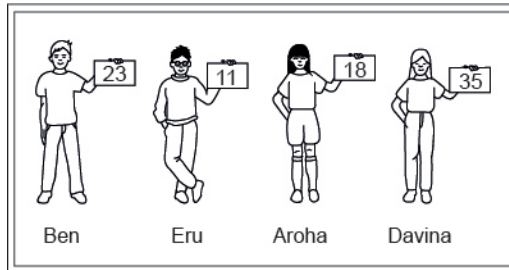
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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ADMINISTER ON SCREEN ONLY

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?

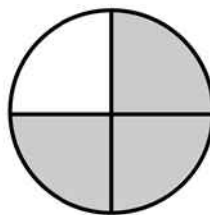


- Ben
- Eru
- Aroha
- Davina

P02. Complete this number pattern.

2, 4, _____, _____, 10

P03. What fraction of this circle is shaded?

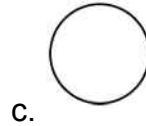
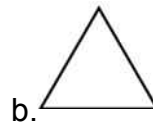




P04. Match the sentence with the correct shape.

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.

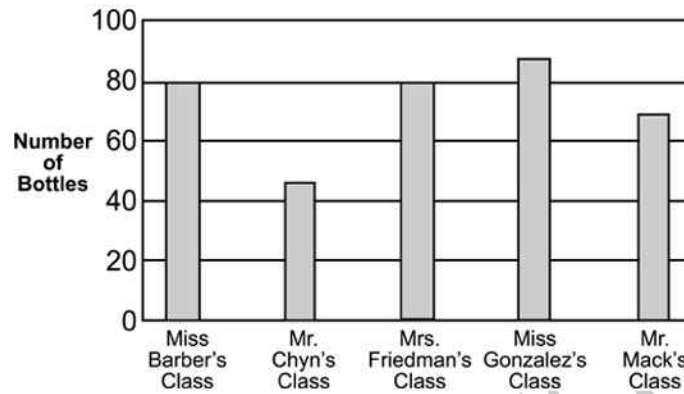
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01. What number would make this number sentence **TRUE**?

_____ + 5 = 39

Use the following information to answer questions 02 to 03.

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.



02. Which class collected 45 bottles?

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

03. 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


04. Meve's family picked strawberries. Meve picked 50, Johnny picked 42, Dad picked 87, Mum picked 98 and Aunty Sam picked 14.





Write these numbers from smallest to largest.

05. Taimani gets \$7.00 each week for mowing lawns. Which **TWO** ways could she be paid?

(A) 

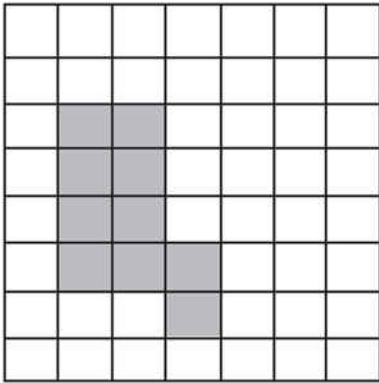
(B) 

(C) 

(D) 

- A or B
- A or D
- B or D
- C or D

06. 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

07. What fraction of this shape is shaded?



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

08. 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	I
Relay Race	
Ring Toss	

Fun Fair	
Face Painting	
Relay Race	
Ring Toss	I

Fun Fair	
Face Painting	
Relay Race	
Ring Toss	I

Fun Fair	
Face Painting	I
Relay Race	
Ring Toss	

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09. Look at the symbol below.

+

When you see this symbol between two numbers, what does it mean?

- The two numbers are equal.
- You must add the two numbers.
- You must subtract the numbers.
- One number must be bigger than the other number.

10. Sam placed cookies on a cookie sheet to form 2 rows with 6 cookies in each row.

Which of the following number sentences **BEST** describes this situation?

- $2 \times 6 = \underline{\quad}$
- $2 + 6 = \underline{\quad}$
- $6 \div 2 = \underline{\quad}$
- $6 - 2 = \underline{\quad}$

11. Which number sentence can be used to solve the problem below?

Maya bought 12 packages of light bulbs. There were 2 light bulbs in each package. How many light bulbs did Maya buy?

- $12 \times 2 = \boxed{\quad}$
- $12 \div 2 = \boxed{\quad}$
- $12 + 2 = \boxed{\quad}$
- $12 - 2 = \boxed{\quad}$

12. Here is a number pattern.

What three numbers should be in the boxes?

100, 1, 99, 2, 98, , ,

- 3, 97, 4
- 4, 97, 5
- 97, 3, 96
- 97, 4, 96

13. James reads 8 pages of a book each day for 4 days.

Which number sentence could James use to find the total number of pages he read?

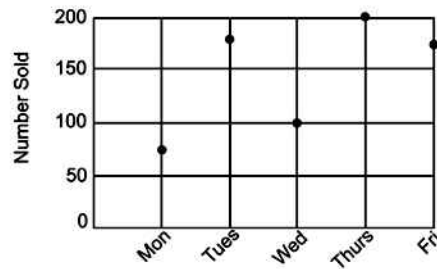
- $8 + 4$
- 8×4
- $4 + 4 + 4 + 4$

14. Which digit is in the hundreds place in 2345?

- 2
- 3
- 4
- 5

15. According to the graph below, about how many sandwiches were sold on Tuesday?

NUMBER OF SANDWICHES SOLD IN FIVE DAYS



- 100
- 150
- 180
- 200

16. Write 3461 in words.

17. Julie bought 2 bunches of flowers. The cost was \$6.73. What type of flowers did she buy?

Type of Flower	Cost per Bunch
Daisies	\$1.92
Roses	\$3.85
Lilies	\$2.88
Sunflowers	\$1.10

- Roses and lilies
- Daisies and roses
- Daisies and lilies
- Lilies and sunflowers

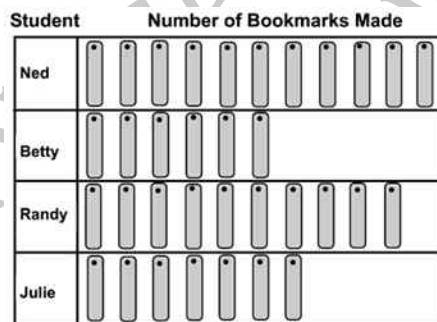
18. The table shows how much money Henry's Produce Store can make by selling boxes of fruit.

Number of Boxes Sold	Money Made
1	\$ 4
3	\$12
5	\$20
7	\$28
9	

If the pattern in the table continues, how much money can the store make by selling 9 boxes?

- \$30
- \$32
- \$36
- \$40

19. 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?



Each represents 2 bookmarks.

- 6
- 8
- 16
- 18

20. Lily has 7 blue T-shirts and some red T-shirts in her drawer. There are 16 T-shirts altogether.

How many T-shirts are red?

- 8
- 9
- 11
- 23

21. There were 560 apples in a barrel. The farmer sold 298.



Which one of the number sentences correctly shows how many apples were left in the barrel?

- $298 - 560$
- $560 + 298$
- $560 - 298$
- $560 \div 298$

22. Ron was listening to the radio and heard, "One hundred and twenty-four thousand and sixty-five books have been donated to the library."

What is this number?

- 12 465
- 124 065
- 124 650
- 100 024 065

23. Tom drove 103 kilometres in the morning and 125 kilometres in the afternoon. How many kilometres did Tom drive in all, to the nearest hundred?

- 100
- 200
- 300

24. Which of the following fractions is the greatest?

- $\frac{1}{9}$
- $\frac{1}{2}$
- $\frac{1}{5}$
- $\frac{1}{10}$

25. What number goes in the box to make the number sentence **TRUE**?

$$6 \times \square = 48$$

- 6
- 7
- 8
- 9

26. The table shows the number of coloured pencils needed for different numbers of students.

If each student gets the same number of pencils, how many are needed for 6 students?

Number of Students	Number of Pencils
1	4
2	8
3	12

- 22
- 24
- 26
- 27

27. There are six houses in Hill Street.

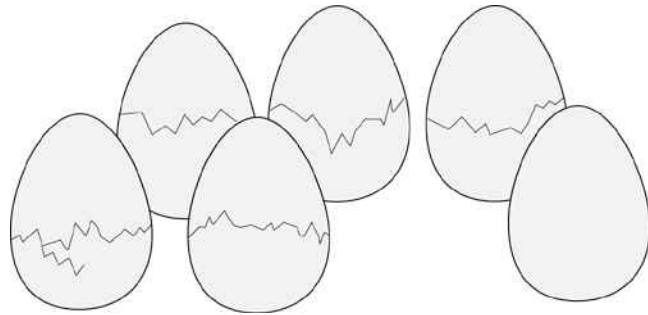
The first house is numbered T , the second house is numbered $T + 2$ as shown below.



What numbers do the last two houses in Hill Street have?

_____ and _____

28. What fraction of the group of eggs is cracked?



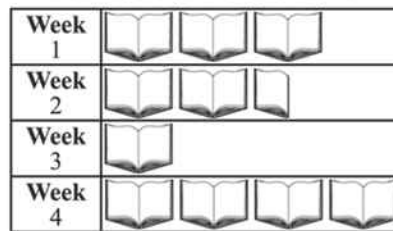
- $\frac{1}{6}$
- $\frac{5}{6}$
- $\frac{5}{1}$
- $\frac{6}{5}$

29. Write this number in its simplest form.

$2000 + 300 + 6$ _____

30. The principal challenged Mrs Brown's class to read 100 books in February. The graph below shows the number of books they read. How many books did the class read?

Number of Books Read



Key:  = 10 Books

- 10
- 11
- 105
- 110

31. The table shows the cost of milkshakes at an ice cream store.
If the pattern in the table continues, what will be the total cost for 6 milkshakes?

Milkshake Costs

Number of Milkshakes	Total Cost
1	\$2.50
2	\$5.00
3	\$7.50
4	\$10.00
5	\$12.50
6	?

- \$15.00
- \$14.50
- \$13.50
- \$13.00

32. What is the number below?
Seventy two

- 27
- 70
- 72

33. At a picnic, cider is served in cups.
If 1 litre will fill 2 cups, how many cups can be filled from 8 litres of cider?

- 4
- 8
- 11
- 16

34. 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

35. Jane has 200 sheets of paper. She used 27 for a report.

How many sheets does she have left?

- 173
- 183
- 227

36. The table shows the cost of parking in a downtown parking lot. The cost per hour for parking does not change.

Based on the pattern in the table, what will be the total cost for parking 3 hours?

Parking Costs

Number of Hours	Total Cost
1	\$2.25
2	\$4.50
3	?
4	\$9.00
5	\$11.25

- \$8.75
- \$6.75
- \$6.50
- \$5.25

37. Robert went to the shop with \$2.
He bought an ice-block for 70c.



How much change did Robert get?

38. Use the information below to answer the question.

Six students were in a swimming race.

These were their times.

Jim	50.165
Bob	51.065
Kim	55.065
Amber	51.094
Helen	56.105
Clark	50.065

Clark won the race.

Which student came third?

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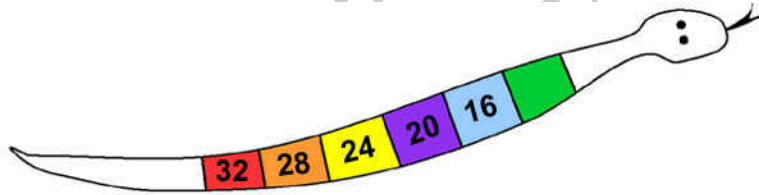
39. In Mr Bell's classes, the students voted for their favourite shape for a symbol. The results are shown below.

Using the information in the chart, Mr Bell must select one of the shapes to be the symbol.

	Class 1	Class 2	Class 3
Shape N	9	14	11
Shape P	1	9	17
Shape Q	22	7	2

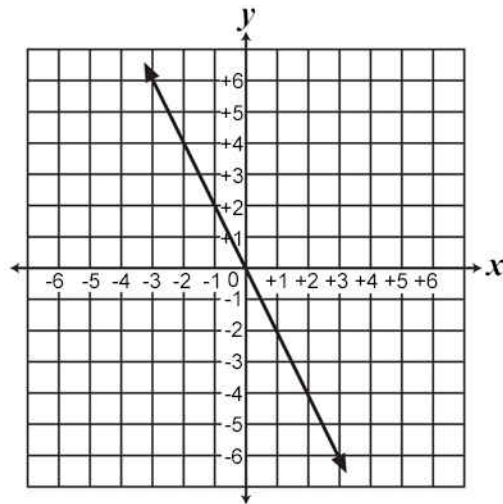
Which one should he select and why?

40. What is the rule for this number pattern?



Rule: _____

41. Which of the following points is on the graphed line?



- (-3, 6)
- (-2, 3)
- (2, -3)
- (3, -4)

Use the following information to answer question 42..

The table shows the percent coverage with good quality drinking water for 1990 and 2000 in different UNICEF regions.

UNICEF Region	Percent coverage in 1990			Percent coverage in 2000		
	Urban	Rural	Total	Urban	Rural	Total
Sub-Saharan Africa	86	39	53	83	44	57
Middle East/North Africa	92	74	82	95	77	87
South Asia	90	66	72	94	80	85
East Asia/Pacific	97	61	71	93	67	76
Latin America/Caribbean	92	58	82	94	66	86
CEE/CIS & Baltic States	-	-	-	95	82	91
Industrialized countries	100	100	100	100	100	100
Developing countries	92	60	71	92	69	78
Least Developed countries	86	58	63	82	55	62
World	94	64	77	95	71	82

42. Which region had the lowest rural coverage in 2000?

End of Section

43. Bob said "Tall people can jump higher".

Height	Highest Jump
1.27 m	56 cm
1.39 m	75 cm
1.41 m	81 cm
1.32 m	60 cm

Based on the information in the table, explain why Bob said this.

44. Mary sells newspapers for \$1.20 each. She is paid 40% of her total sales.

How much money does Mary earn if she sells 10 newspapers?

\$ _____

45. Debbie runs 0.6 of a mile every day.

How many miles will Debbie run in 45 days?

_____ miles

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

Tablet (9"+)

- iPads: iOS10+ 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. 

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.