#### **SEA Practice Test 9**

# **MATHEMATICS**

#### Based on the Revised SEA Framework 2021-2023

#### **INSTRUCTIONS**

This test is divided into THREE sections with a total of 40 questions.

SECTTION 1 has 20 questions (nos. 1-20), SECTION 2 has 16 questions (nos. 21-36) and SECTION 3 has 4 questions. (nos. 37-40).

You have 75 minutes to answer ALL questions. Read each question carefully and show all working in the column provided. Marks will be given for correct steps taken.

DO NOT BEGIN UNTIL YOU ARE TOLD TO DO SO.

### Section 1

1.	Write in words: \$9 307.45	
Answe	r:	(1 mark)
2.	What is the value of the digit bolded in the number below? <u>5</u> 48 013	
Answe	r:	(1 mark)
3.	Identify the number X on the pattern below.	
	2 5 X 23 47	
Answe	r:	(1 mark)
4.	Round the number below to the nearest thousand	
	8419	
Answe	r:	(1 mark)

Answer:	(1 mark)
<ol> <li>Write the number in expanded notation.</li> </ol> 2546	
Answer:	(1 mark)
7. What is the product of 47 and 23?	
Answer:	(1 mark)
8. A girl bought some plant seeds costing \$5.50, a bag of top soil co of fertilizers costing \$18.75. How much money did she spend?	sting \$55.00 and a bag
Answer:	(1 mark)

5. Calculate:  $8^2 + 10^2 - \sqrt{16}$ 

9. 645 ÷ 12 =

Answer: \_\_\_\_\_ (1 mark)

#### 10. What is the value of the set of coins and bills?



Answer: \_\_\_\_\_ (1 mark)

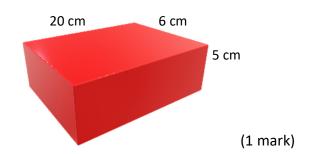
11. Determine the number of lir	ies of symmetry in the plane shapes below.
Answer:	(1 mark)
12. The turn made clockwise on	a clock when the second hand turns from 12 and stops at 9
is	
Select one answer:	
(A) Whole turn	
(B) Three quarter turn	
(C) Half turn	
(D) Quarter turn	
Answer:	
	(1 mark)
13. Name the angle shown below	W.
166°	
Answor	(1 mark)
Answer:	(I mark)
14. Convert to millimetres.	
	49.17 cm
Answer:	
	<del></del>
	(1 mark)

- 15. Which standard unit would you use to measure the length of a playfield? Select ONE.
  - (A) Centimetres
  - (B) Millimetres
  - (C) Metres
  - (D) Kilometres

Answer: \_\_\_\_\_

(1 mark)

16. Calculate the volume of the cuboid below.



Answer: \_\_\_\_\_

17. Calculate.

Answer: \_\_\_\_\_

(1 mark)

18. Determine the mode for the set of numbers below.

		11	15	6	17	10	16	12	16	20	
Answer:			-								(1 mark)
19. /	Arrange t 783		wing nun 2 658				ler.				
Answer:									(1 ma	ark)	
20. T	he mean	of 5 nur	mbers is 6	50. Wh	at is the	sum of	the nu	mbers?			
Answer:									(1 ma	ark)	

21. What is the median score for the following numbers?

#### **SECTION 2**

	92	78	81	86	82	64	77			
Answer:									(	(2 mark)
22. Write the set	of mul	tiples o	f 7 betv	ween 20	) and 45	5.				
Answer:									(	(2 mark)
23. A boutique is with the price								oaying ca	ish for	a jacket
Answer:									(	(2 mark)
24. A retailer buy incurs a loss o					er for \$	740.00.	Calculat	e the sel	ling pri	ce if he
Answer:									(	(2 mark)

going to deduct 25 points. What will Jillian's final score on the report be?

25. Jullian just got a grade of 94 on a report. However, he turned it in late, and his teacher is

Answer: (2	2 mark)
26. Abram is spending a day at the hotel pool. He enjoys jumping from the very cool (79 degrees) to the very hot Jacuzzi (104 degrees).  a. What temperature change is Abram experiencing as he moves from pool to Jacuzzi (104 degrees).	
Answer: (1 r	mark)
b. The swimming pool holds 5 times more gallons of water than the Jacuzzi. How water is in the swimming pool?  600 gallons	much
Answer: (1 mark	k)

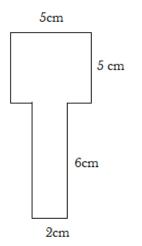
27. Simone earned \$250 on Monday, \$275 on Tuesday and \$300 on Wednesday. If she

wants to earn an average of \$250 for the work week by Friday, how much she earn by Friday?	n more should
Answer:	(3 mark)
28. Tammy had \$151, and borrowed \$57 from her sister to help pay for a new oven costing \$200.00. She received a 25% discount on the microwave. Ca hand blender on sale for \$55.00. Explain.	
Answer:	
	(2 mark)
29. Identify the part of the pattern that repeats and complete the pattern.	
Answer:	(2 mark)

30. How many right angles are there on the faces of a rectangular prism?

nswer: (2 m	ark)
31. Susan place blueberries on two plates. There are ¾ kg of blueberries on one plate ar 2/3 kg on another plate.	nd
a. How many grams of blueberries are there altogether?	
nswer: (1 mark)	
b. She wants to make sure the two plates are even. Show and explain how she show do this.	blu
nswer:	
2 marks)	

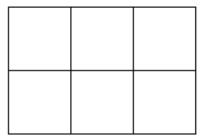
32. Find the perimeter of the figure below.



Answer: \_\_\_\_\_

(2 mark)

- 33. The shape has been made using identical squares. One square has a perimeter of 16 m.
  - a. What is the perimeter of the whole shape?



Answer: \_\_\_\_\_

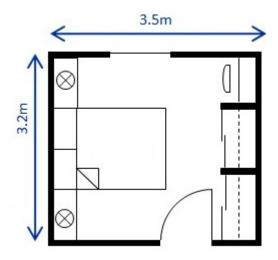
(3 mark)

b. what is the area of the whole shape?

Answer: \_\_\_\_\_

)

34. How much will it cost to carpet a room if the carpeting cost \$14.50 per square m.



35. The table below shows the number of pets owned by some students. What fraction of students own at least 4 pets?

No. of Pets	0	1	2	3	4	5
No. of	3	6	8	6	4	2
Students						

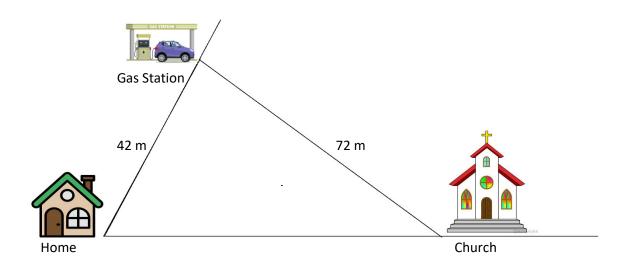
Answer: \_\_\_\_\_ (2 mark)

36. Vincent saved \$2.50, \$4.30, \$10.25, \$ 4.60 and \$3.60 from each day Monday to Friday. Calculate his mean saving per day.

Answer: \_\_\_\_\_ (2 mark)

#### **SECTION 3**

37. The map below shows the route to church.



a. Lin is at home. She is facing north. She made a turn of 270degrees in an anticlockwise direction. Which building is now in the direction she is facing? Explain.

Answer:	
	(2 marks)

b. A distance around this triangular route is 150 m. if Lin drove from home to the gas station and then to church. Calculate the distance she still has to drive to get from the church to the home?

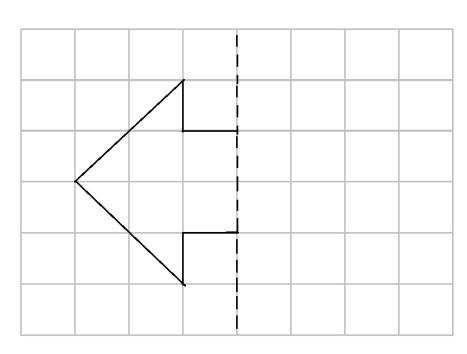
Answer: \_\_\_\_\_\_ (2 marks)

38. Observe the grid below before you answer the questions.

a. Complete the shape using AB as the line of symmetry.

(1 mark)

Α



В

- b. With the shape now drawn, draw another line of symmetry. Label it CD. (1 mark)
- c. What is the area of the shape if the squares on the grid are of side 4 cm.

Answer: \_\_\_\_\_

(2 mark)

Lisa wraps a gift box in the shape of a square-based prism. its sides.	The box measures 12 cm at
a) Draw the gift box below, showing its measurements.	(1 mark)
b) What is total surface area of the box?	(3 mark)
Answer:	

40. The tally chart below shows the number of animals bought by Farmer Brown over the years.

Animal	Tally	Amount
Cows	### ### ### IIII	
Goats	## ### ###	
Sheep	HH	

a.	How many animals did Farmer Brown buy?

swer: (1	mark)	)

Answer:

c. What percentage of the animals are sheep? (1 mark)

Answer: \_\_\_\_\_

END OF TEST

#### **Answers:**

- Nine thousand, three hundred, seven dollars and forty-five cents.
- 2. 50000 or 5 hundred thousand
- 3. Answer= 11
- 4. Answer= 8000
- 5. Answer: 64+100-4=160
- 6. Answer= (2x1000)+(5x100)+(4x10)+(6x1)
- 7. Answer=47x23=1081
- 8. Answer = \$79.25
- 9. Answer = 53.75
- 10. Answer= \$21.60
- 11. Answer= 0 symmetry
- 12. Answer= b
- 13. Answer = Obtuse angle
- 14. Answer = 491.7 mm
- 15. Answer= c
- 16. Answer=Volume: 20x6x5=60cm<sup>3</sup>
- 17. Answer = 14kg 275 g
- 18. Answer: 16 (the value that appears most often)
- 19. Answer= 492 517 658 783 834
- 20. Answer= 60 x 5=300
- 21. Answer= 81
- 22. Answers = Multiples of 7 between 20 and 45 are 21, 28, 35, 42
- 23. Answer =100-5=95% or 0.95; 210x0.95=\$199.50
- 24. Answer= 740x0.15=\$111 (loss); 740-111=\$629 (selling price)
- 25. Answer= 94-25=69
- 26. Answer: a) 104-79=25 degrees Answer: b) 600x5=3000 gallons

- 27. 250+275+300=825 250x5=1250 Difference=1250-825=425 Answer= \$425 by Friday
- 28. Answer= Tammy has a total cash of \$208 after buying the microwave at the discounted price of \$150, or change (\$58) will be sufficient to buy the blender.









- 29. Answer=
- 30. There are 6 faces. Each with 4 right angles.

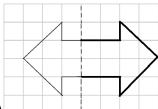
Answer=6x4=24 right angles

- 31. Answer a 3/4 + 2/3=1 5/12 kg of blueberries

  Answer b) 1/12. She should remove

  1/12 of the berries from the first plate.

  This is the best solution to make it even is the amount of berries are set.
- 32. Answer= 5+5+1.5+6+2+6+1.5=32 cm
- 33. Answer a) perimeter of shape=12+8+12+8= 40 m
  Answer b) Area= 12x8=96m<sup>2</sup>
- 34. Area 3.5x3.2=11.2; 11.2x\$14.5=\$162.40 (Answer)
- 35. Total students= 3+6+8+6+4+2=29; Answer= 6/29
- 36. 2.50+4.30+10.25+4.60+3.60=25.25 Answer =\$25.25/5=\$5.05 per day saved
- 37. Answer= Answer= a) 270 is a half and a quarter turn. An anticlockwise turn of a half and a quarter will have him turn to face the church.



#### 38. Answer= a)

b) area of a square=4cmx 4cm=16cm2; total area =16x6 (squares)=96cm2

#### 39. Answer=

1 square area=12x12=144cm<sup>2</sup> There are 6 faces Answer b) total surface area=144x6=864cm<sup>2</sup>

40. Answer a) 24+15+21=60 animals
Answer b) 24-12=9 more cows than goats
Answer c 21/60x100=35% is the amount of sheep