Ministry of Education, Youth and Information

Primary Exit Profile (PEP 6)

April 2019

Curriculum Based Test-Mathematics

Time: 1 hour 30 minutes

Write your name and school below:

Name of Student

Name of School

DO NOT OPEN THIS BOOKLET UNTIL TOLD TO DO SO

For items 1 - 30 there is only one (1) correct answer. Indicate your response by shading the letter next to the answer you choose. An example is given below.

Example

What is the value of r, if $7 + 8 = r$?

(A) 1

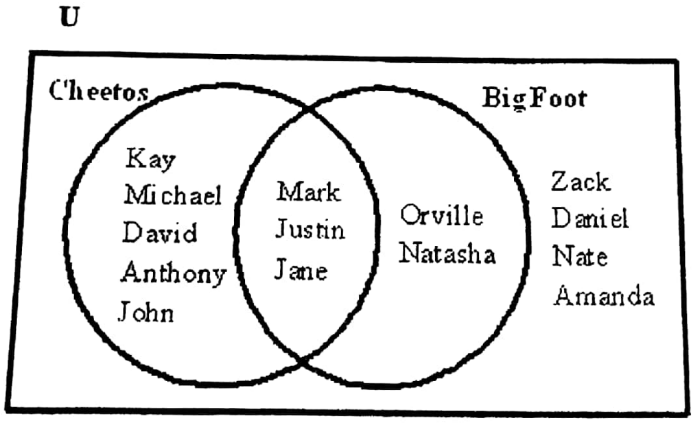
(B) 15

(C) 56

(D) 78

"B" is shaded because it is the only correct answer.

1. The Venn diagram below shows the snack that some children prefer.



Which students like both Cheetos and Big Foot?

(A) {Mark, Justin, Jane}

(B) {Amanda, Nate, Zack, Daniel}

(C) {Kay, Michael, David, Anthony, John, Orville, Natasha}

(D) {Kay, Michael, David, Anthony, John, Mark, Justin, Jane, Orville, Natasha}

2 The expanded form of a number is shown below.

[illegible]

Which represents the number in standard form?

( ) [illegible]

( ) [illegible]

( ) [illegible]

( ) [illegible]

3 What are the next two terms in the sequence below if the pattern continues?

[illegible]

( ) [illegible]

( ) [illegible]

( ) [illegible]

( ) [illegible]

4 Which of the following is NOT a factor of [illegible]?

( ) [illegible]

( ) [illegible]

( ) [illegible]

( ) [illegible]

5. Which operation, should be placed in the box to make the number sentence below true?

$26 \square 35 = 91$

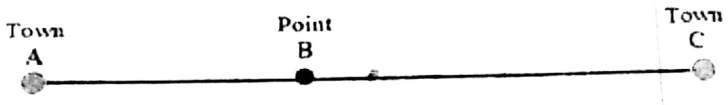
(A) +

(B) −

(C) ×

(D) ÷

6. The diagram below represents the distances between Town A, Point B and Town C. Peter travelled in a straight line from Town A to Town C.



If he stopped at point B, what percentage of the journey did he cover?

(A) 4%

(B) 20%

(C) 40%

(D) 60%

7. Square numbers, such as 1, 4, 9, etc., can be formed by adding consecutive odd numbers beginning with 1.

Which is **NOT** an example of this fact?

(A) $1 + 3 + 5$

(B) $1 + 3 + 5 + 7$

(C) $1 + 3 + 5 + 7 + 9$

Read the rule below and use it to answer number 8.

"In a pattern, starting at the third (3rd) term each term is found by adding the two previous terms."

Which pattern would follow this rule?

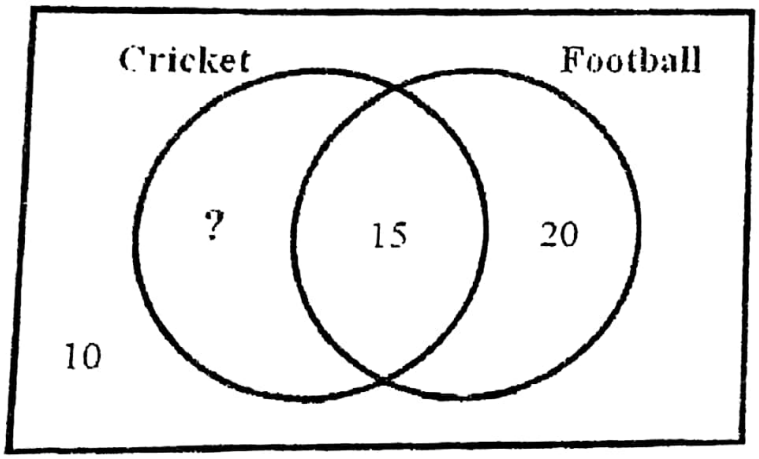
(A) 0, 1, 1, 2, 3, 5, 8, 13.....

(B) 0, 3, 3, 6, 12, 24, 48.....

(C) 11, 121, 141, 161, 181 .....

(D) 22, 44, 88, 1010, 1212 .....

The students in 6G were asked to name the sport they played. The data collected is shown in the Venn diagram below.



What information do you need to determine how many students played cricket **only** ?

(A) The number of students who play football

(B) The number of students who play cricket

(C) The number of students who play **both** football and cricket

(D) The number of students who do not play football or cricket

10. Which of the following shows the reciprocal of the product of 5 and 6?

(A) 11

(B) 30

(C) $\frac{1}{11}$

(D) $\frac{1}{30}$

11. 20% of a number is 35. What is the number?

(A) 7

(B) 55

(C) 175

(D) 1400

12. Fifty (50) sweets were shared between John and Mark in the ratio of 1:4 respectively. What was Mark's share?

(A) 40 sweets

(B) 30 sweets

(C) 10 sweets

(D) 5 sweets

13. Mark, Stacey and Jennifer all received their weekly salaries. Stacey received $3 000.00 while Jennifer received $9 000.00.

If the ratio of Stacey's salary to Mark's salary is 3:4, what is the ratio of Mark's salary to Jennifer's salary?

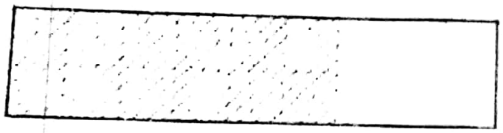
(A) 1:3

(B) 4:9

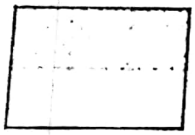
(C) 4:3

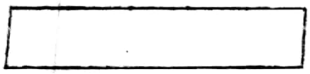
(D) 9:4

14. Which diagram shows the ratio of shaded to un-shaded parts as 2:1?

(A) 

(B) 

(C) 

(D) 

15. A child was asked to convert 16% to a fraction.
There **may** be an error in the given solution.

$= \frac{16}{10}$ Line 1

$= \frac{8}{5}$ Line 2

$= 1\frac{3}{5}$ Line 3

In which line could the possible error occur?

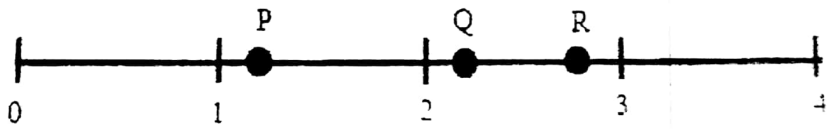
(A) Line 1

(B) Line 2

(C) Line 3

(D) There is no error.

16. The line segment below represents 4 wholes.
Mario correctly selected point Q to represent an estimation of 220% on the line segment.



Which of the following **could not** be his reason for choosing this point?

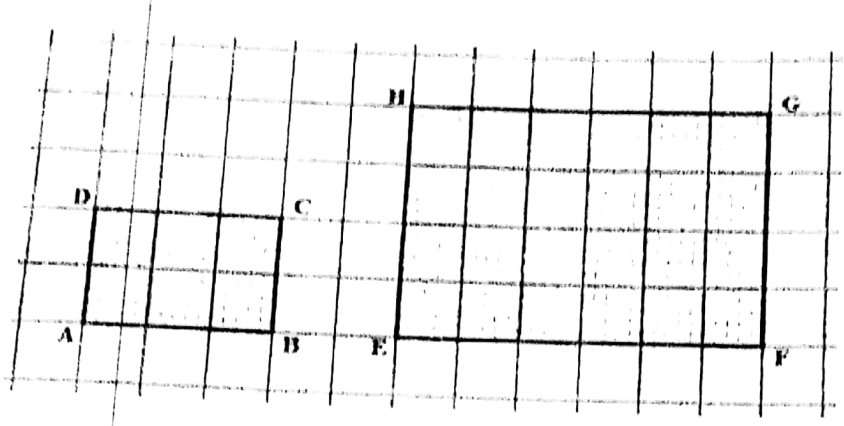
(A) 220% is just a little over 2 wholes.

(B) Any random point between 2 and 3 would be correct.

(C) Point P is too close to 1 and Point R is too close to 3.

(D) Point Q is approximately 1/5 the way between 2 and 3, which is 20% more.

The diagram below shows two similar rectangles. Use it to answer items 17 and 18.



17. What is the ratio of side **AB** to side **EF**?

(A) 2:1

(B) 2:3

(C) 1:2

(D) 3:2

18. What is the ratio of the area of **ABCD** to the area of **EFGH** in its simplest form?

(A) 2:1

(B) 1:4

(C) 1:2

(D) 6:24

19. It is now 1400 hrs. What time will it be in 8 hours?

(A) 10:00 pm

(B) 10:00 am

(C) 6:00 pm

(D) 6:00 am

20. Carl's Bakery occupies a rectangular work space measuring 80 m by 40 m. He expects to increase his work space by 50% when he moves to a new location. What could be the dimensions of the new work space?

(A) 40 m by 20 m

(B) 80 m by 60 m

(C) 120 m by 60 m

(D) 160 m by 20 m

21. Which information is enough to determine the perimeter of a rectangle?

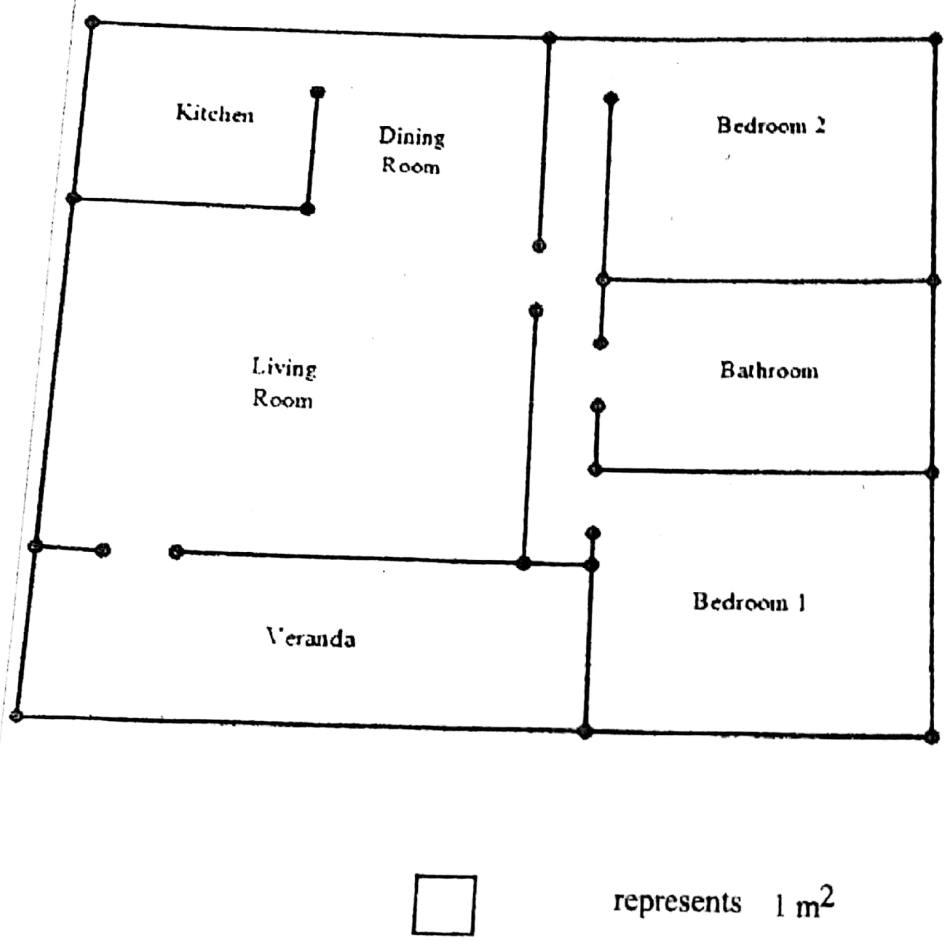
(A) The length of the diagonal

(B) The area of the rectangle

(C) The size of the angles

(D) The length of the sides

22. The scaled drawing of a floor plan is shown below.



□ represents 1 m^2

Which information is enough to determine the perimeter of a rectangle?

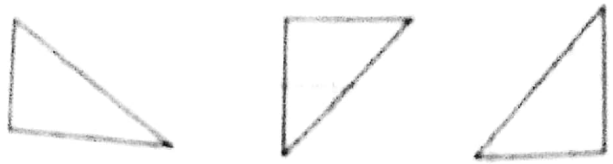
(A) 20 m^2

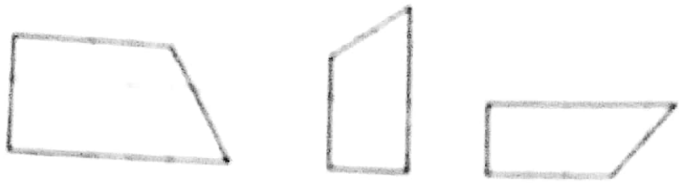
(B) 24 m^2

(C) 40 m^2

(D) 70 m^2

21 Which of the four groups below **best** shows three congruent shapes?

A 

B 

C 

D 

24. $\frac{12}{23} + \frac{9}{23} = p$. What is the value of p?

(A) $\frac{3}{23}$

(B) $\frac{21}{23}$

(C) $\frac{21}{46}$

(D) $\frac{103}{46}$

25. If $k = 130$, what is the value of $k - 34$?

(A) 116

(B) 130

(C) 138

(D) 316

26. From the pattern below, which expression can be used to determine the value of x?

100, 95, 90, 85, 80, 75, x

(A) $75 + 5$

(B) $75 - 5$

(C) 75×5

(D) $75 - 5$

27. Which two operation symbols could be placed in the box to give the same result n?

$$942 \square 0 = n$$

(A) + and –

(B) + and ×

(C) × and ÷

(D) ÷ and –

28. If $\square = x$ and $\Delta = 1$, which diagram could be used to represent the equation $x + 4 = 9$?

(A)

(B)

(C)

(D)

29. Which pair of numbers when inserted in the boxes labelled m and n will produce a sum that is less than 1?

$$\frac{\boxed{m}}{5} + \frac{3}{\boxed{n}}$$

(A) $m = 1$ and $n = 3$

(B) $m = 2$ and $n = 5$

(C) $m = 5$ and $n = 3$

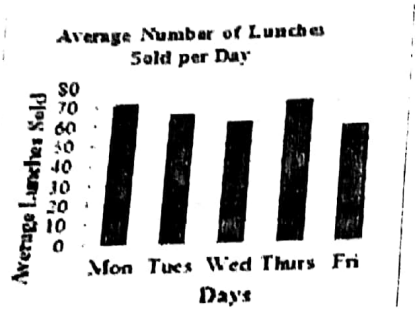
(D) $m = 1$ and $n = 4$

30. Dacia is doing a research project on the average number of lunches sold per day at her school. She arranged the data in a table then drew a graph to present her findings.

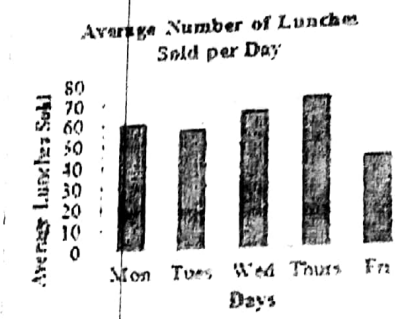
Days	Average Lunches Sold
Monday	60
Tuesday	70
Wednesday	65
Thursday	57
Friday	42

Which bar graph shows the information in the table?

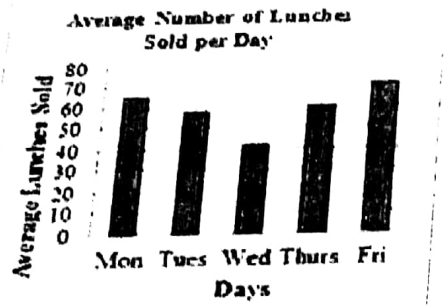
(A)



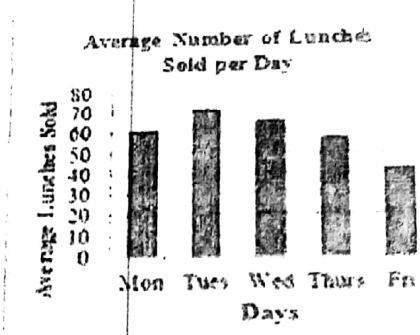
(B)



(C)



(D)



For items 31 - 35, there is <u>more than one (1)</u> correct answer. Indicate your responses by shading the letters next to the answers you choose. An example is given below.

<u>Example</u>

Which two are properties of triangles?

(A) Triangles have only 3 sides
(B) The diagonals bisect at right angles
(C) The sum of the angles is 180°
(D) Opposite sides are equal

"A" and "C" are shaded because they are both correct responses.

31. Which **two (2)** statements below, if placed in the box, will make the equation correct?

$$\boxed{\ ?\ } = 180$$

(A) $450 - 270$
(B) $120 + 40$
(C) $380 \div 2$
(D) 12×15

32. Which **two (2)** values of x will make the inequality false?

$$x + 5 < 30$$

Ⓐ 10

Ⓑ 18

Ⓒ 25

Ⓓ 29

33. There are 36 students in Bella's class. 16 of them are boys and 20 of them are girls.

Bella thinks that the ratio of boys to girls could be written as 36:16. Bella's teacher says she's incorrect.

What **two (2)** ratios could be used to correctly represent this relationship?

Ⓐ 4 : 5

Ⓑ 9 : 4

Ⓒ 8 : 10

Ⓓ 27 : 12

34. Examine the pattern below. Select **two (2)** ways in which the fifth term can be determined.

180, 270, 360, 450,_____

(A) By adding 10 to the fourth term then subtracting 100 from it

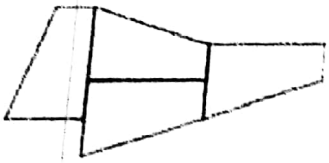
(B) By adding 90 to the fourth term

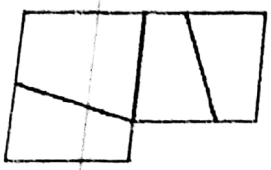
(C) By adding 100 to the fourth term then subtracting 10 from it

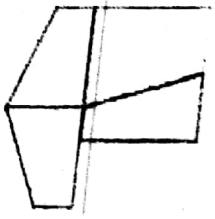
(D) By adding 9 to the fourth term then multiply by 10

35. If  represents 25% of a shape, which **two (2)** figures below could be the complete shape?

(A) 

(B) 

(C) 

(D) 

For items 36 - 39 indicate your responses by shading the appropriate letter in each row of the table given. Only one letter is to be shaded in each row. An example is given below.

Example

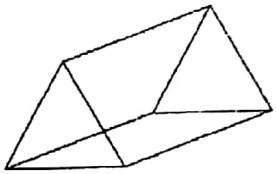
Examine the table then indicate which number in the left column is a prime number or a composite number.

Number	Prime	Composite
2	(A)	(B)
6	(A)	(B)
13	(A)	(B)
15	(A)	(B)

"A" is shaded because number 2 and number 13 are prime numbers.

"B" is shaded because number 6 and number 15 are composite numbers.

36. Tony is using a triangular prism to make the top of a toy house.



He wants to know how much cardboard he needs to build the roof. Indicate whether the information in the first column is **necessary** or **not necessary** in order to make this decision.

Information	Necessary	Not Necessary
The number of edges	(A)	(B)
The area of each triangle	(A)	(B)
The length of each rectangle	(A)	(B)
The number of faces	(A)	(B)

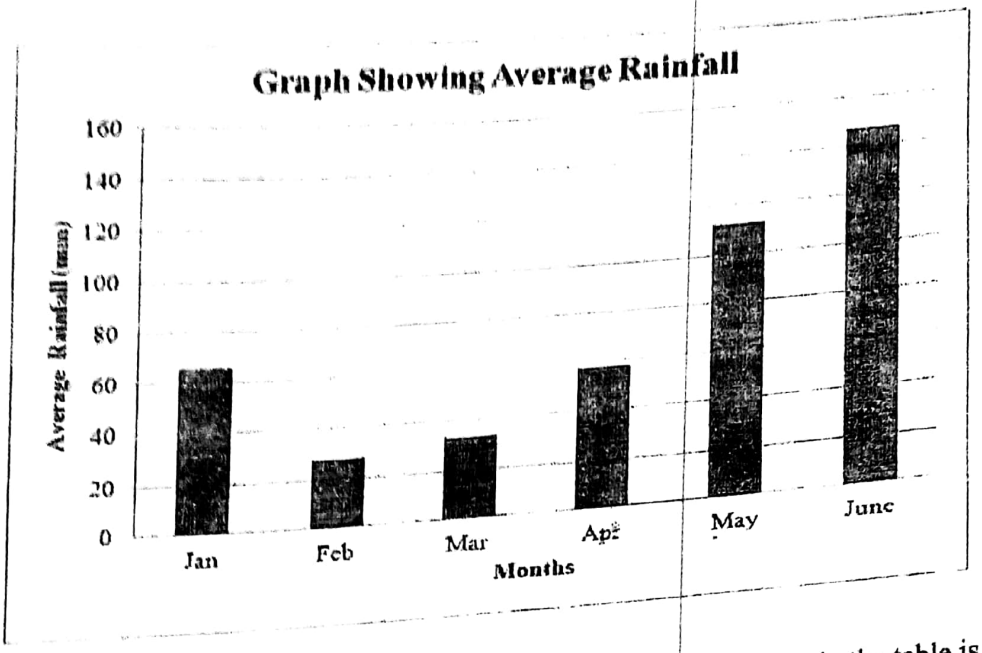
37. Examine the table below. Indicate whether the number in Column 2 is **a factor, a multiple** or **neither a factor nor multiple** of the number in Column 1.

Column 1	Column 2	Is a factor	Is a multiple	Is neither a factor nor multiple
16	8	(A)	(B)	(C)
28	7	(A)	(B)	(C)
30	20	(A)	(B)	(C)
50	150	(A)	(B)	(C)

38. Shade the appropriate circle to tell whether each set described is **finite** or **infinite**.

Description	Finite	Infinite
The set of marbles in a water tank	(A)	(B)
The set of counting numbers	(A)	(B)
The set of hair on the human body	(A)	(B)

39. The graph below shows the average rainfall for the first 6 months of 2018.



Use the information in the graph to determine whether each statement in the table is **true** or **false**.

Description	True	False
June has the most rainfall	(A)	(B)
Rainfall increased consistently every month during the first 6 months of 2018.	(A)	(B)
April has approximately twice as much rainfall as February	(A)	(B)

For item 40 indicate your responses by shading the letter in the sentence or paragraph that makes it correct. Each letter corresponds to a symbol from a given list of options. An option should be used only once. Not all options have to be used. An example is given below.

Example

Choose two operations from the list of options given below that make the number sentence that follows true.

A	B	C	D	E
=	+	−	×	÷

25 Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ 16 Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ 41

In order to make the number sentence true, 16 must be added to 25 to get a result of 41. Therefore, "B" must be shaded first, then "A" second.

25 + 16 = 41

40. Kaci wants to save money towards buying a new cellphone. The prices do not exceed $10,000. Her mother gives her $3,000 to start. She plans to save $500 each week. Let w represent the number of weeks.

Use the symbols in the rectangle below to complete a number sentence that she can use to determine the number of weeks she would need to save to buy the cellphone.

A	B	C	D	E	F
>	≤	=	−	−	×

$500w Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ $3000 Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ $10,000