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BJC

FOR EXAMINERS' USE ONLY	
TOTAL	

SCHOOL No.	CANDIDATE No.
INITIALS	SURNAME

MINISTRY OF EDUCATION
BAHAMAS JUNIOR CERTIFICATE EXAMINATION 2019

0044 MATHEMATICS

PAPER 1 (50 Marks)

Monday **3 JUNE 2019** 9:00 A.M.–10:00 A.M.

INSTRUCTIONS TO CANDIDATES:

Do not open this booklet until you are told to do so.

Write your school number, candidate number as well as your Initial(s) and Surname in the spaces provided on this question booklet.

Answer **ALL** questions in the spaces provided on this question booklet.

ALL working must be shown.

The use of calculators, tables or other calculation aids in **NOT** allowed.

ALL working is to be done in **blue** or **black ink**. Working and answers written in pencil, **except for constructions and graphs**, may not be marked.

ALL diagrams are not draw to scale unless otherwise indicated.

The mark for each question, or part question, is shown in brackets [ ].

ROUGH WORK

Answer **ALL** questions in the spaces provided. Show **ALL** necessary working.

1. (a)
$$\begin{array}{r} 2696 \\ +\ 722 \\ \hline 1351 \\ \hline \\ \hline \end{array}$$

Answer: _____ [1]

(b)
$$\begin{array}{r} 8657 \\ -6094 \\ \hline \\ \hline \end{array}$$

Answer: _____ [1]

---

2. (a)
$$\begin{array}{r} 4397 \\ \times\ 7 \\ \hline \\ \hline \end{array}$$

Answer: _____ [1]

(b) $6\overline{)6936}$

Answer: _____ [1]

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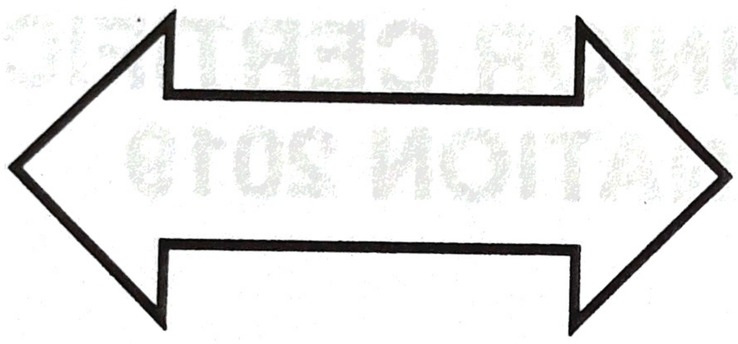
3. Draw in all line(s) of symmetry in the shape below. [2]



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4. State the value of 9 in each number below.

(a) 0.982

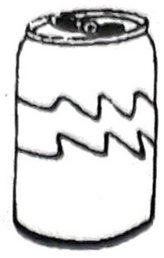
Answer: _____ [1]

(b) 90.325

Answer: _____ [1]

ROUGH WORK

5. A can holds 350 ml of soda.



How many millilitres (ml) are in 6 similar cans of soda?

Answer: _____ [2]

---

6. (a) Draw and label angle ABC = 80°. [2]

(b) What type of angle is ABC?

Answer: _____ [1]

---

7. Place < or > in the blank to make a true statement.

(i) $\frac{1}{8}$ _____ $\frac{1}{12}$ [1]

(ii) 50% _____ $\frac{3}{4}$ [1]

(iii) 2.06 _____ $2\frac{6}{10}$ [1]

ROUGH WORK

8. (a) Write 144 as a product of prime factors.

Answer: _____ [2]

(b) Find the value of $\sqrt{144}$.

Answer: _____ [1]

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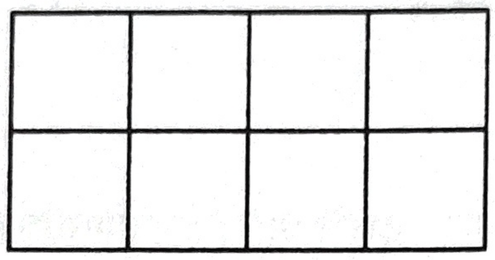
9. (a) Shade $\frac{3}{4}$ of the diagram below. [1]



(b) Fill in the blank to make an equivalent equation.

(i) $\frac{3}{5} = \frac{\quad}{25}$ [1]

(ii) $\frac{6}{8} = \frac{9}{\quad}$ [2]

---

10. Write the next two numbers in each sequence.

(a) 1, 2, 4, 7, 11, _____, _____ ... [2]

(b) 9, 16, 25, 36, _____, _____ ... [2]

---

11. Busters Variety Store is having a 20% storewide sale.

(a) Calculate the discount on a bag that is priced $80.

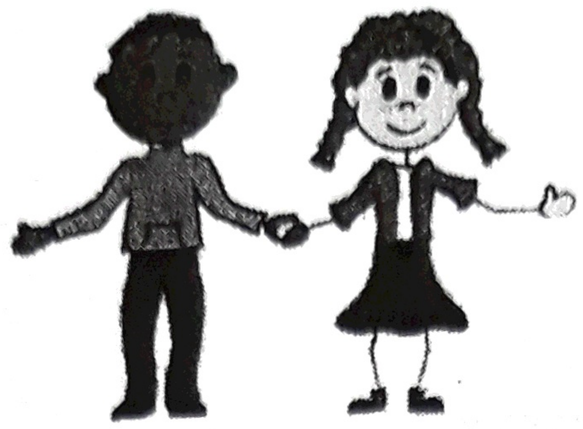
Answer: _____ [2]

(b) What is the sale price of the bag?

Answer: _____ [2]

ROUGH WORK

12. John is 189 cm tall and Sue is 150 cm tall.



(a) How much taller is John than Sue?

Answer: _____ [2]

(b) Express your answer from (a) in metres.

Answer: _____ [2]

13. Ben had $25. He spent $6.55 on lunch and $10 on Top Up.

(a) How much did he spend altogether?

Answer: _____ [2]

(b) How much money did he have left?

Answer: _____ [2]

ROUGH WORK

14. Rainfall for the last 5 days of a certain month are shown below

Day of the Week	Amount of Rainfall
Monday	2 inches
Tuesday	1.5 inches
Wednesday	1.5 inches
Thursday	2.5 inches
Friday	3 inches

(a) Which day had 0.5 inches more rain than Wednesday?

Answer: _____ [1]

(b) What was the modal amount of rainfall?

Answer: _____ [1]

(c) What is the average rainfall for the last 5 days?

Answer: _____ [3]

---

15. (i) Simplify by collecting the like terms:

$6m + 2d - 4m + 3d$

Answer: _____ [2]

(ii) Given that $x = 20$, find the value of

$$\frac{x+15}{7}$$

Answer: _____ [2]

(iii) Solve for c

$3c + 8 = 20$

Answer: _____ [2]

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MINISTRY OF EDUCATION
BAHAMAS JUNIOR CERTIFICATE EXAMINATION 2019

0044 MATHEMATICS

PAPER 2 (100 Marks)

Tuesday **4 JUNE 2019** 9:00 A.M.–10:00 A.M.

INSTRUCTIONS TO CANDIDATES:

Do not open this booklet until you are told to do so.

Write your school number, candidate number as well as your Initial(s) and Surname in the spaces provided on this question booklet.

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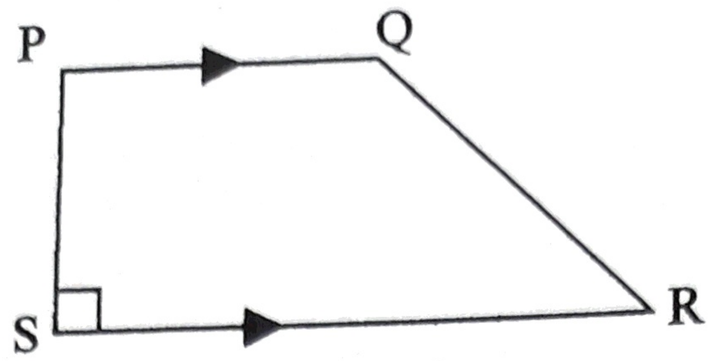
ALL diagrams are not drawn to scale unless otherwise indicated. .

The mark for each question, or part question, is shown in brackets [ ].

ROUGH WORK

1. Use the diagram below to answer the following questions.



(i) State the pair of parallel lines.

Answer: _____ [1]

(ii) State a pair of perpendicular lines.

Answer: _____ [1]

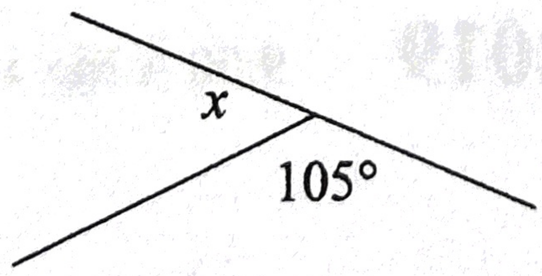
---

2. What is the Lowest Common Multiple of 16, 12 and 4.

Answer: _____ [2]

---

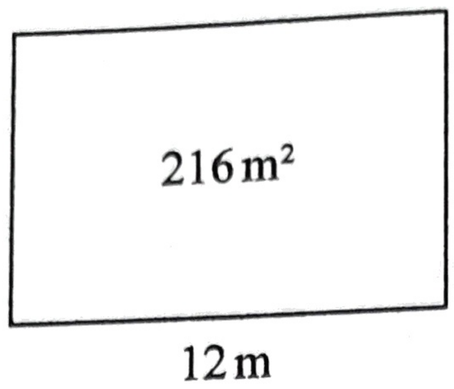
3. Calculate the size of the angle marked x.



Answer: _____ [2]

ROUGH WORK

4. The area of a rectangular piece of land is 216 m². If the length of the land is 12 m. Calculate the width of the land.



Answer: _____ [2]

---

5. Calculate the value of 400 + 150 ÷ 2

Answer: _____ [2]

---

6. Tanya is *m* years old. Sandra is 6 times as old as Tanya.

(a) Write an expression in *m* to show Sandra's age.

Answer: _____ [1]

(b) The sum of their ages is 63.

(i) Write an equation to show this information.

Answer: _____ [1]

(ii) Solve your equation to find Sandra's age.

Answer: _____ [2]

ROUGH WORK

7. Ms. Roberts bought 45 calculators at $2.20 each.

(a) What was the total cost of the calculators?

Answer: _____ [2]

(b) She received $1.00 in change from the cashier.

How much money did she give the cashier?

Answer: _____ [1]

---

8. There are 1200 students at Tropical High School. The ratio of boys to girls is 3:5.

(a) How many girls are in the school?

Answer: _____ [4]

(b) 9 more boys entered the school.

If the ratio remains the same how many girls entered?

Answer: _____ [3]

ROUGH WORK

9. Mr. Smith purchased 80 pens. He discovered that 15% of them were faulty.

(a) How many pens were good?

Answer: _____ [3]

(b) He sold the good pens for 50 cents each. How much money did he make?

Answer: _____ [2]

---

10. Bradley received $5000 from his grandmother. He invested $\frac{3}{4}$ of the money.

(a) How much money did he invest?

Answer: _____ [2]

(b) Bradley invested the money for 2 years at a simple interest rate of 5% per annum.

Calculate the interest earned.

Answer: _____ [3]

ROUGH WORK

11. (a) Find the product of 84 and 7

Answer: _____ [2]

(b) Divide 2214 by 3

Answer: _____ [1]

(c) Find the sum of your answers from part (a) and part (b)

Answer: _____ [2]

---

12. Margo Forbes earns $9 per hour when she works a basic week of 40 hours.

(a) Calculate the amount of her basic pay.

Answer: _____ [2]

(b) Overtime is paid at time and a half.

How much does she earn for 1 hour of overtime?

Answer: _____ [2]

(c) Calculate Margo's total wage for the week if she worked 6 hours of overtime in addition to her basic hours.

Answer: _____ [3]

---

13. Farmer Henry harvested $12\frac{2}{3}$ pound of potatoes and $8\frac{1}{4}$ pound of carrots last week.

(a) How many pounds of vegetables did he harvest altogether?

Answer: _____ [3]

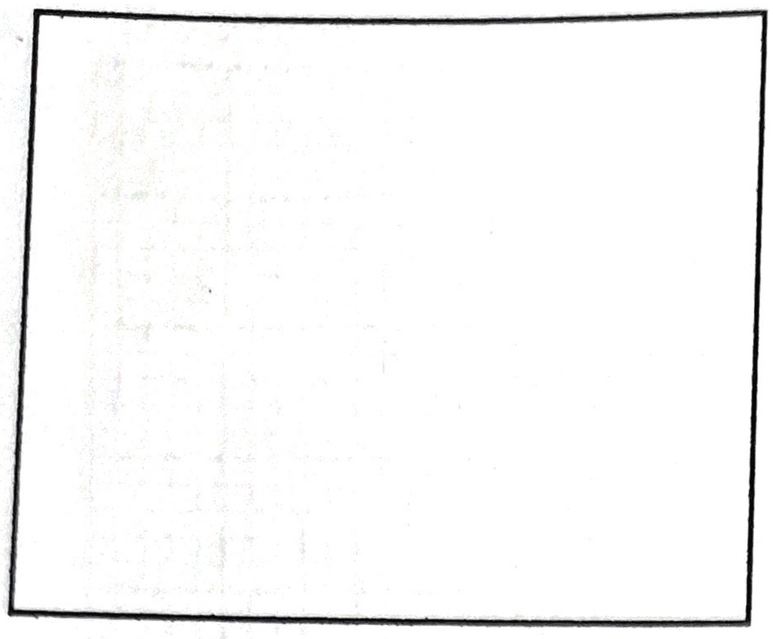
(b) The following week he harvested 23 pounds of vegetables.

How many more pounds of vegetables did he harvest in the second week?

Answer: _____ [3]

ROUGH WORK

14. The diagram below represents a rectangular field drawn to scale.



DRAWN TO SCALE

(a) Measure and write down the length and width of the scaled drawing.

(i) Length _____ cm [1]

(ii) Width _____ cm [1]

(b) Using a scale of 1 cm to 7 cm

Calculate

the actual length and width of the land.

Actual length _____ m [1]

Actual width _____ m [1]

(c) Calculate the actual perimeter of the land.

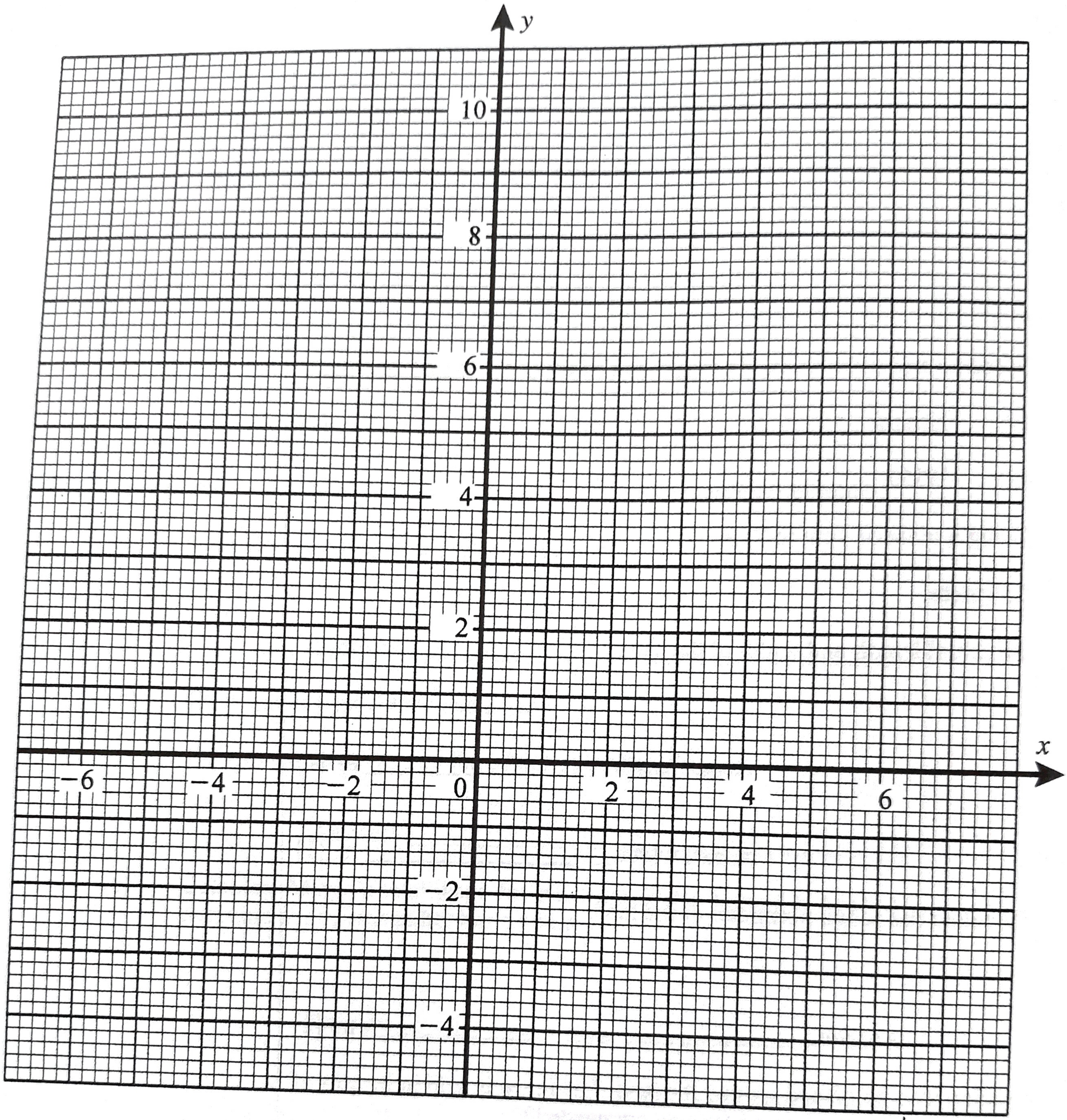
Answer: _____ m [2]

(d) Fencing is to be placed around the land. The fence is sold in lengths of 3 m. How many sections of fencing are needed?

Answer: _____ [3]

ROUGH WORK

15.



(a) Plot, label and join the following points to form a quadrilateral.

H (−4, 0), I (−3, 2), J (−1, 0), K (−3, −3) [5]

(b) Draw in the diagonal IK [1]

(c) Reflect HIJK in the y axis [2]

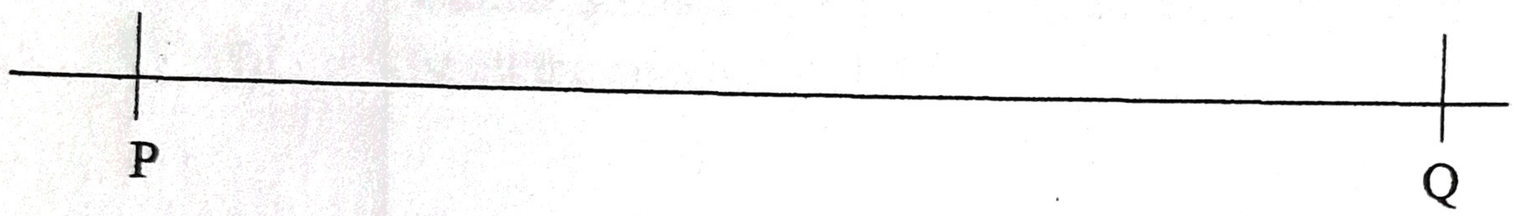
(d) Label the image $H_1I_1J_1K_1$ [1]

ROUGH WORK

16. The side PQ of triangle PQR has been drawn below.

(a) Use a ruler, a pencil and a pair of compass only to

(i) Complete triangle PQR with PR = 6 cm and QR = 8 cm [2]



(ii) bisect the side PQ [2]

(iii) bisect the angle PQR [3]

(iv) label the point A where the bisectors meet [1]

(v) measure and write down the length of AP [1]

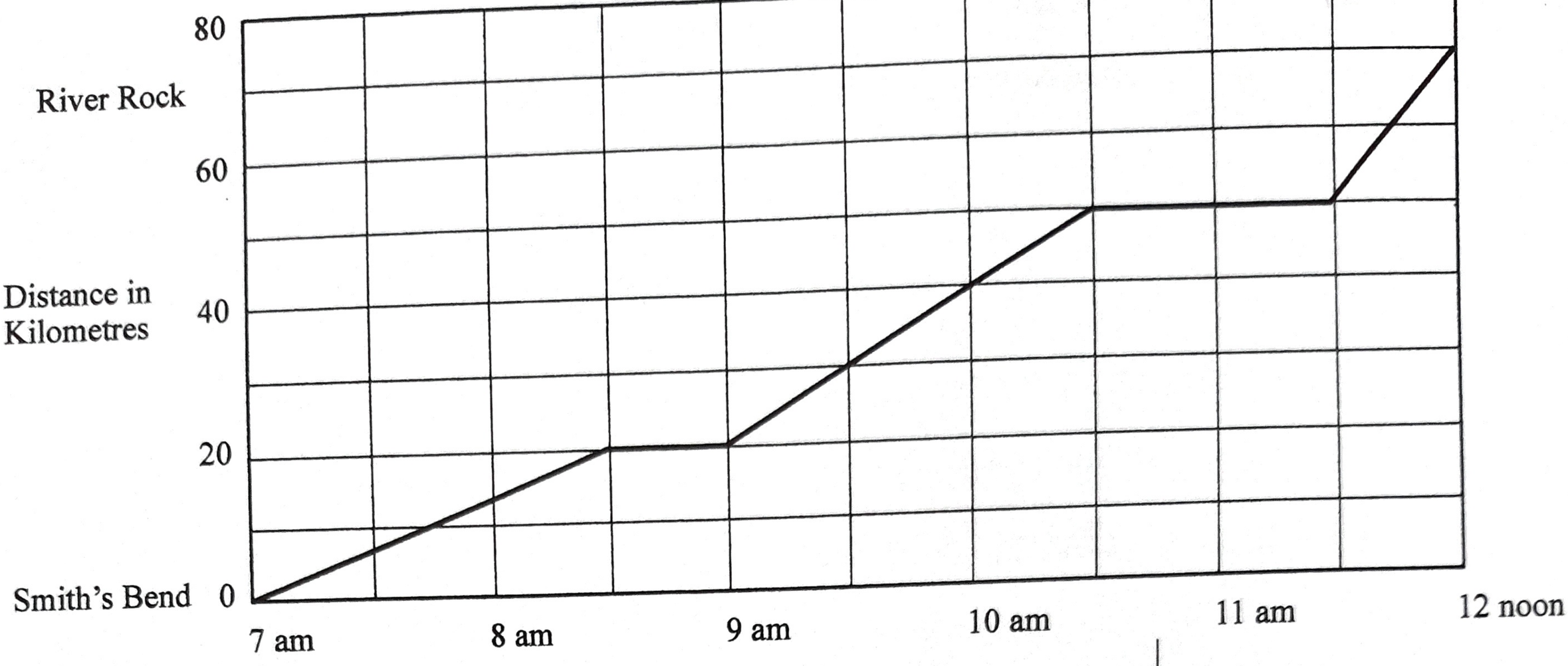
(vi) measure and write down the size of angle PRQ [1]

(b) What type of triangle is PQR?

Answer: _____ [1]

ROUGH WORK

17. The graph below represents a bicycle ride from Smith's Bend to River Rock.



(a) At what time did the cyclist make his FIRST stop after leaving Smith's Bend?

Answer: _____ [1]

(b) Calculate the total time the cyclist stopped altogether?

Answer: _____ [1]

(c) How many kilometres away from River Rock was the cyclist at 10:30 am?

Answer: _____ [1]

(d) What is the distance between Smith's Bend and River Rock?

Answer: _____ [1]

(e) How long did the journey from Smith's Bend to River Rock take (excluding stops)?

Answer: _____ [2]

(f) Calculate the average speed of the journey (excluding stops)

Answer: _____ [3]

ROUGH WORK

18. (a) Place the correct letter from Column B besides the Correct Symbol in Column A.

	COLUMN A – SYMBOL	COLUMN B – MEANING
	1. $\notin$	A. The complement
	2. $\subset$	B. Intersection
	3. $\cup$	C. Is not a member of
	4. $\cap$	D. Union
		E. Subset of
		F. The number of elements

[4]

(b) Set E contains the even numbers less than 11.

(i) List all the members of set E.

Answer: { _____ } [2]

(ii) State $\eta(E)$

Answer: _____ [1]

Set P is the prime numbers less than 8.

(iii) State the members of Set P

Answer: { _____ } [2]

(iv) List the members of $P \cap E$.

Answer: { _____ } [1]