Hillcrest High School

Grade 8

MATHEMATICS P2

NOVEMBER 2024

MARKS: 80

TIME: 1 Hour

EXAMINER: Mr W. Searle

MODERATOR: Ms G. Stow

NAME :					**CLASS:**	
TEACHER:					**DATE:**	
Q1	**Q2**	**Q3**	**Q4**	**Q5**	**TOTAL**	**%**
10	**22**	**15**	**20**	**13**	**80**	

INSTRUCTIONS AND INFORMATION

Read the following instructions carefully before answering the questions.

1. This examination consists of 10 pages and 5 questions.

2. Answer ALL the questions in the space provided.

3. Clearly show ALL calculations, diagrams, graphs, etc. which you have used in determining your answers.

4. Answers only will NOT necessarily be awarded full marks.

5. You may use an approved scientific calculator (non-programmable and non-graphical), unless stated otherwise.

6. If necessary, round off answers correct to TWO decimal places, unless stated otherwise.

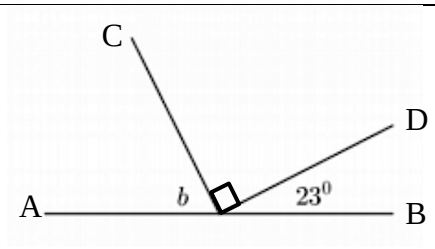
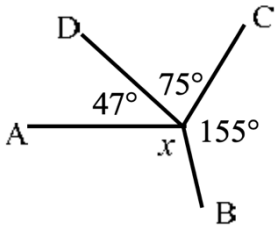
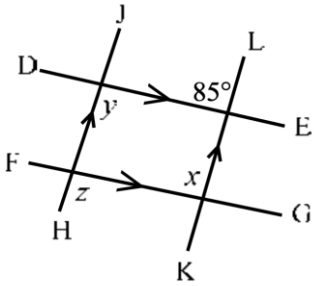
7. Diagrams are NOT necessarily drawn to scale.

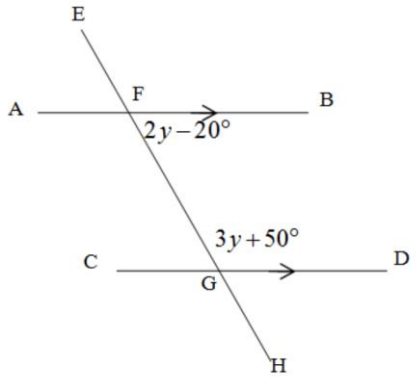
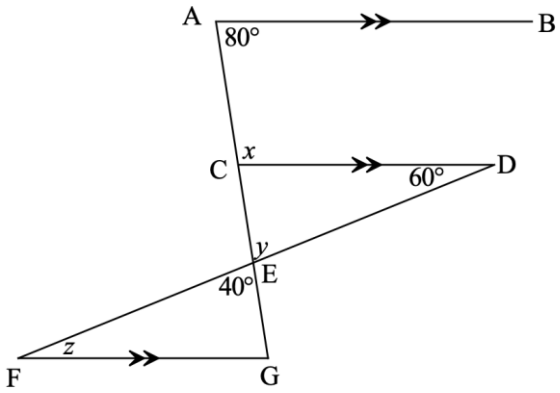
8. Write neatly and legibly.

QUESTION 1

Complete the following sentences		
1.1	The complement of 50° is _____ .	(1)
1.2	The supplement of 120° + x is _____.	(1)
1.3	An angle of 160 is called a/an _____ angle.	(1)
1.4	A reflex angle is an angle bigger than _____ , but smaller than_____.	(2)
1.5	Alternate angles are _____.	(1)
1.6	A triangle with three unequal sides is called a/an_____ triangle.	(1)
1.7	In a right angled triangle the longest side is called the _____.	(1)
1.8	The formula for area of a rectangle is _____ multiplied by _____.	(2)
		[10]

QUESTION 2

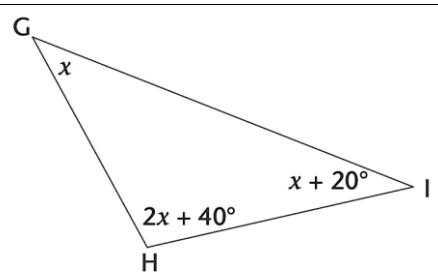
Determine the size of the unknown angles, giving reasons for your answers.		
2.1		(3)
2.2		(3)
2.3		(6)

2.4	 E A F B $2y-20°$ $3y+50°$ C D G H	(4)
2.5	 A B 80° x C D 60° y E 40° z F G	(6)
		[22]

QUESTION 3

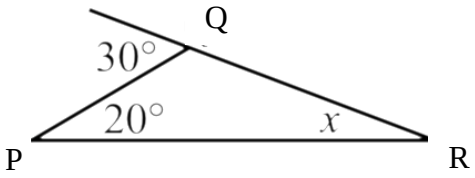
Determine the values of x, giving reasons for your answers.

3.1



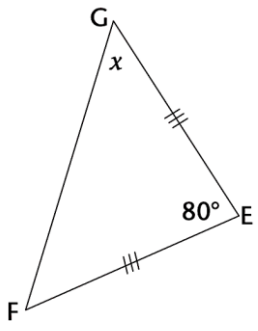
(4)

3.2

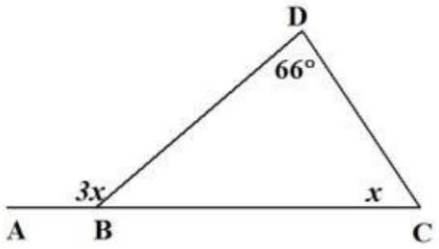


(3)

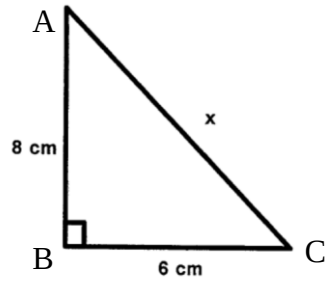
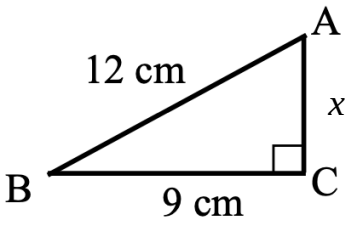
3.3

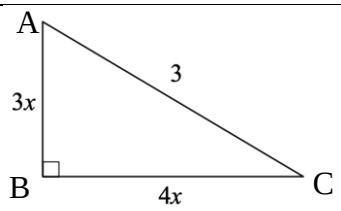
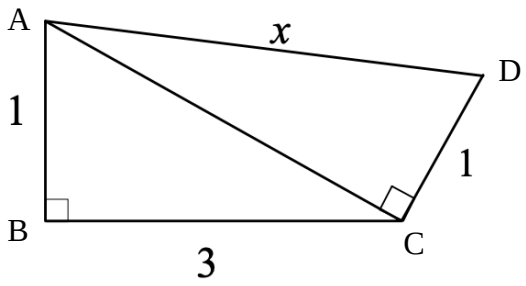
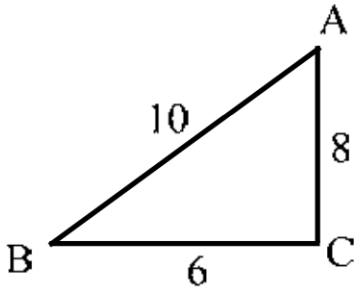


(4)

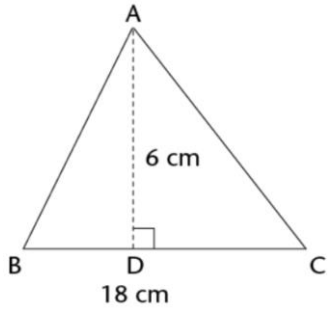
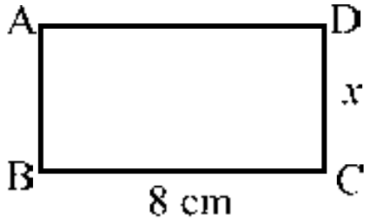
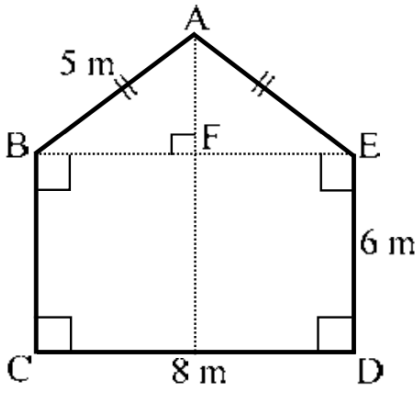
3.4		(4)
		[15]

QUESTION 4

4.1	Find the value of *x* in the diagrams below, giving reasons for your answers. Round your answer to 2 decimal places where needed.	
4.1.1		(3)
4.1.2		(3)

4.1.3		(4)
4.1.4		(6)
4.2	Determine if triangle ABC is a right angled triangle. 	(4)
		[20]

QUESTION 5

5.1	Determine the area of the triangle below. 	(2)
5.2	Determine the value of x, if it is given that the area of rectangle ABCD is 32 cm^2. 	(2)
5.3		
5.3.1	Determine the area of rectangle BCDE.	(2)

5.3.2	Determine the length of AF, and hence the area of triangle ABE.	(5)
5.3.3	Determine the total perimeter of the shape.	(2)
		[13]

TOTAL: 80

MAKE SURE TO CHECK YOUR ANSWERS, ENSURING THAT YOU HAVE GIVEN ALL YOUR REASONS.