Western Cape Government

MATHEMATICS

Back on Track

TERM 3 REVISION 2025

Name and surname:	**Gr.8**
School :	**Topics** ○ Term 3 content

Activity 1(Algebraic expressions)

A. Simplify:

1. $7a - a + 2b + 3a$
2. $-4a - 3a + a$
3. $2abc - bca - 5cba$
4. $3m^4 \times 2m^3$
5. $(2m^2)^2$
6. $(-3m^3)^3$
7. $4(2p + 3)$
8. $6(2a - 3) + 4(a + 2)$
9. $-2a(5a - 3b)$
10. $\dfrac{4x - 8y}{2}$
11. $\dfrac{18x^3 - 12x^2y + 24xy^2}{-6x}$
12. $\dfrac{2x^4 - 8x^3 + 6x^2}{-2x^2}$
13. $x - y(x - y)$
14. $x - y - (x - 2y)$
15. $\sqrt{16a^6} + \sqrt[3]{-27a^9}$
16. $\sqrt{\dfrac{9x^2}{25y^4}}$

B. Determine the value for each of the following if $a = -3\,;\, b = 2\,;\, c = -1$

1. ab^3
2. $(ab)^b$
3. $4a^2 - c$
4. $4a + 3b$
5. $\dfrac{3a^2b^2}{ab}$
6. $2a + b^2 - c$

Activity 2 (Algebraic equations)

A. Solve the following equations:

1. $6x = 72$
2. $4x - 10 = 6x + 40$
3. $4x = 3x + 5$
4. $x + 5 = -10$
5. $\frac{x}{9} - 5 = -1$
6. $-3(p + 1) = p - (2p - 1)$
7. $4(m + 3) - 12 = 10m - 4(m + 4)$
8. $3y^2 = 27$

B.

1. Seven times a certain number, decreased by eight, is equal to 20. What is the number?

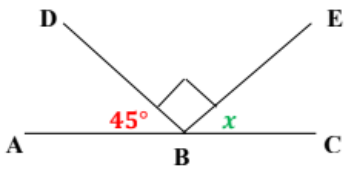
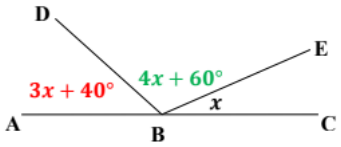
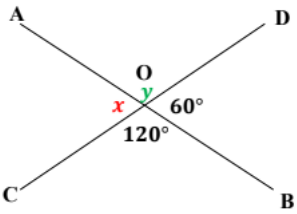
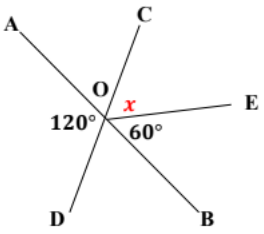
2.1 Write an algebraic equation:

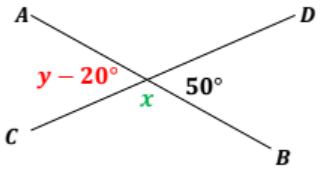
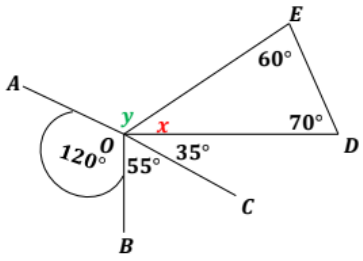
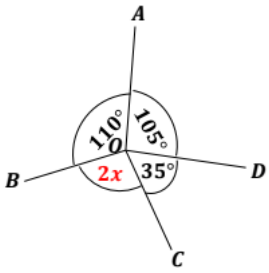
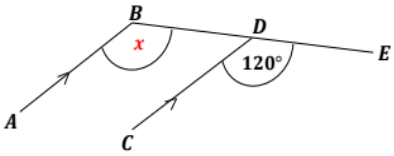
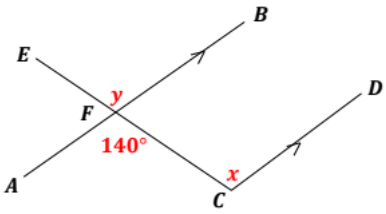
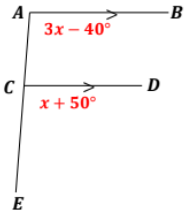
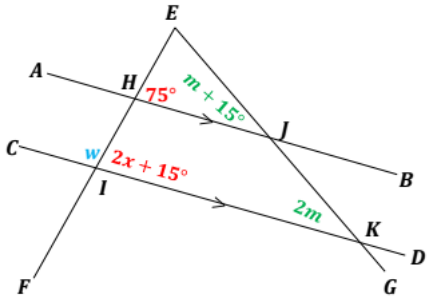
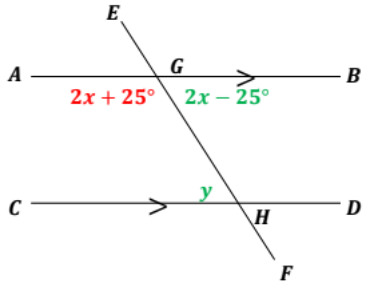
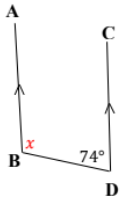
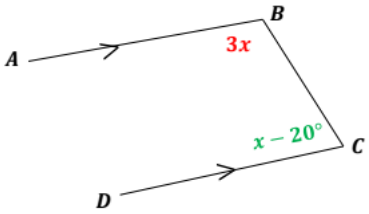
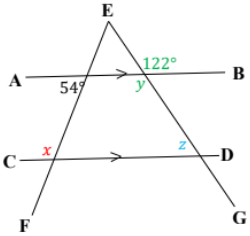
A certain number decreased by 6 is 9 less than 20. Let the number be x.

2.2 Hence, find the value of the number.

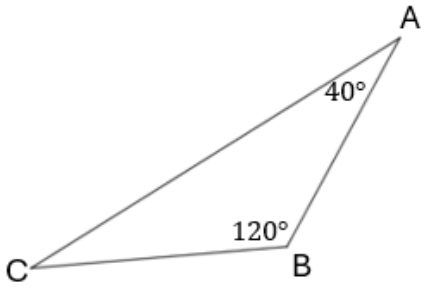
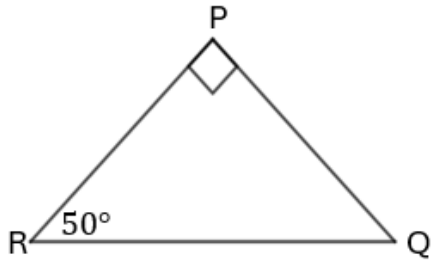
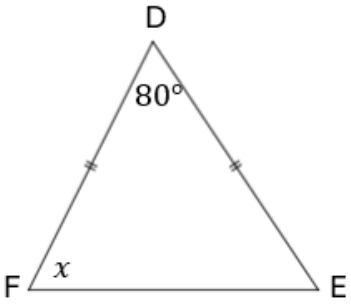
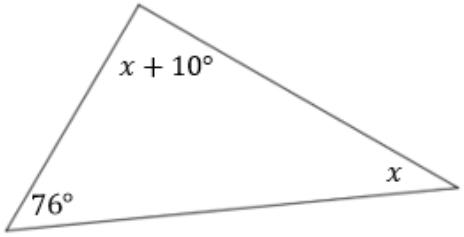
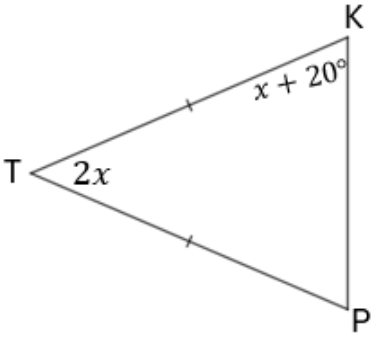
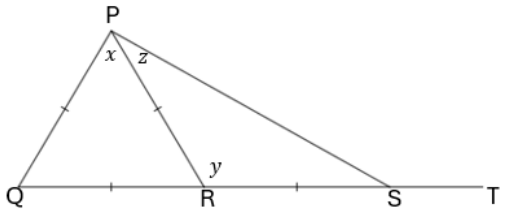
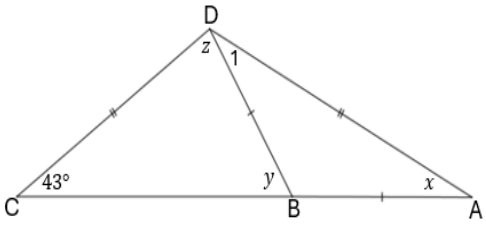
Activity 3 (Geometry of straight lines)

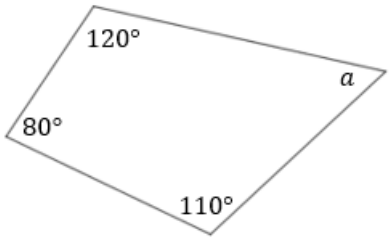
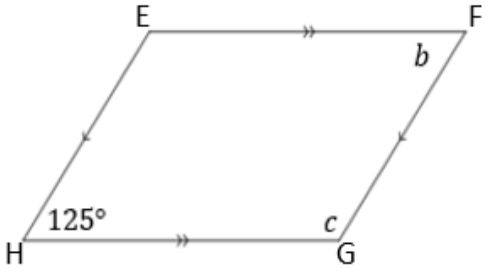
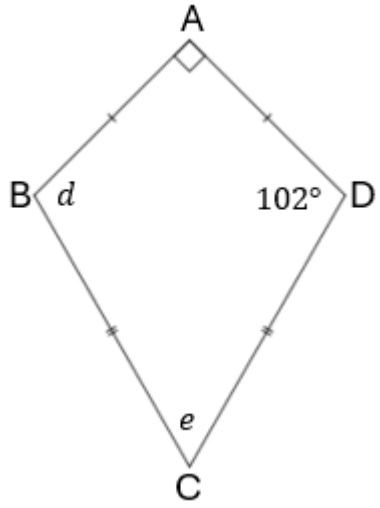
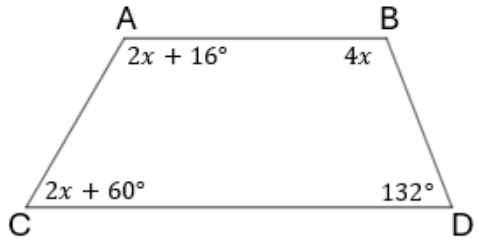
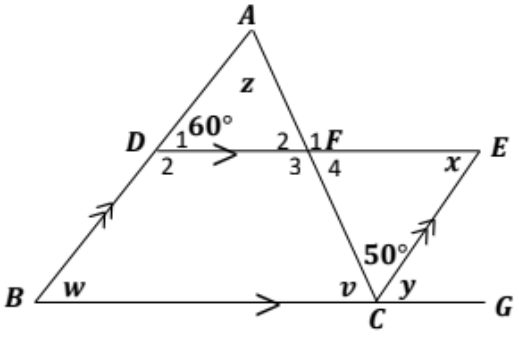
Find the following unknown angles, giving reasons for your answers.

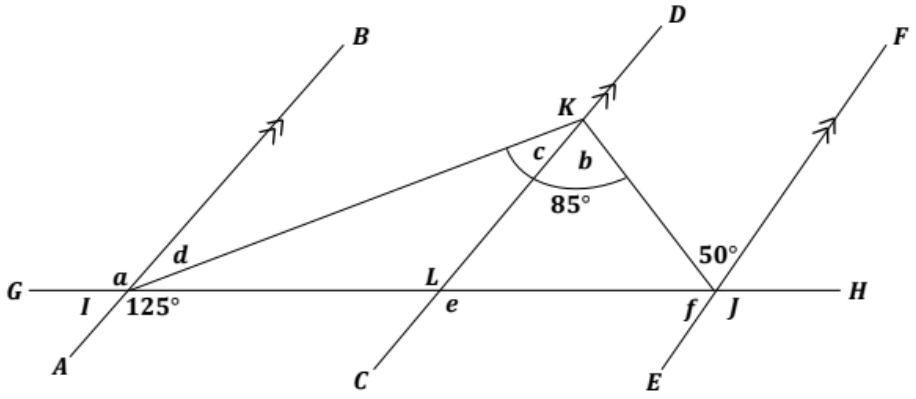
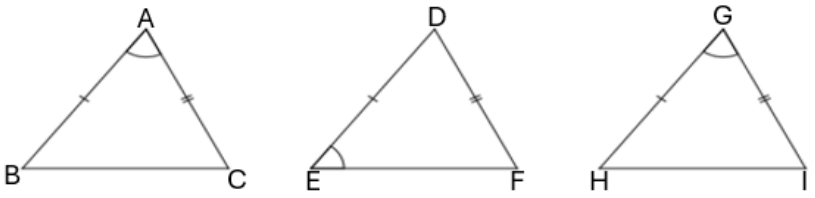
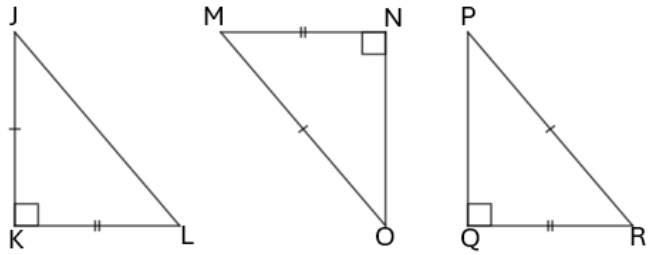
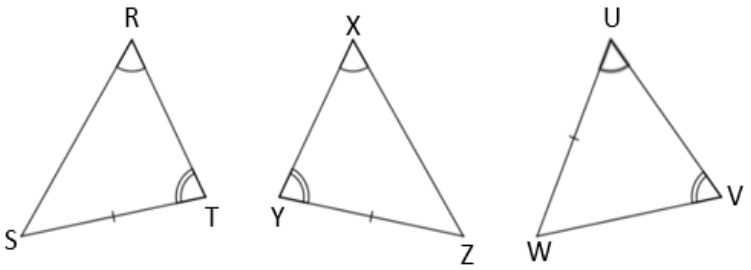
3.1		3.2	
3.3		3.4	

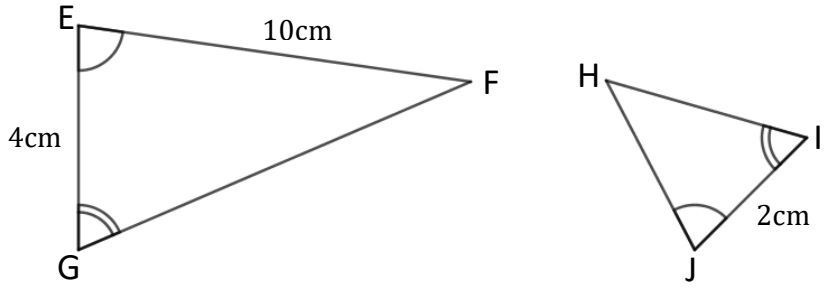
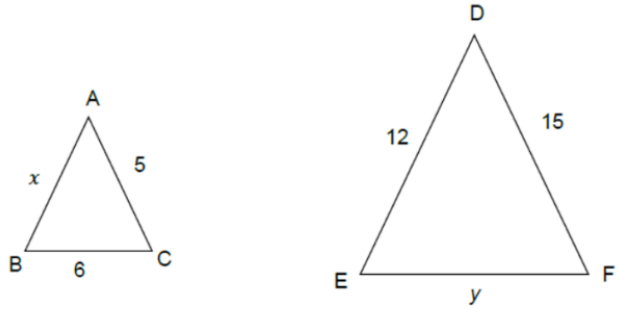
3.5		3.6	
3.7		3.8	
3.9		3.10	
3.11		3.12	
3.13		3.14	
3.15			

Activity 4 (Geometry of 2D shapes)

4.1	Calculate the value of the unknow angles, with reasons.		
4.1.1		4.1.2	
4.2	Determine the value of x with reasons.		
4.2.1		4.2.2	
4.2.3			
4.3	Calculate the value of x, y and z where indicated, with reasons.		
4.3.1		4.3.2	

4.4	Calculate the values of the unknown angles $a - e$ with reasons.		
4.4.1		4.4.2	
4.4.3			
4.5	Determine the value of x, with reasons.		
4.5.1		4.5.2	
4.6	Determine the values of v, w, x, y and z, with reasons.		
			

4.7	Determine the value of $a - f$ with reasons.
	
4.8	For each of the following, determine which triangles are congruent and the case of congruency.
4.8.1	
4.8.2	
4.8.3	

4.9	Given that ΔGEF ||| ΔIJH. Determine the length of HJ.
	
4.10	Consider the diagram below. ΔABC ||| ΔDEF
	
4.10.1	Which angle in ΔDEF is equal to $\widehat{B}$.
4.10.2	Determine the values of x and y.
4.10.3	By what scale factor did ΔABC enlarge to get ΔDEF.

Mathematics is not just about numbers — it's about thinking clearly, solving problems, and believing in your ability to grow. Every time you practice, you are training your brain to be sharper, faster, and more confident.