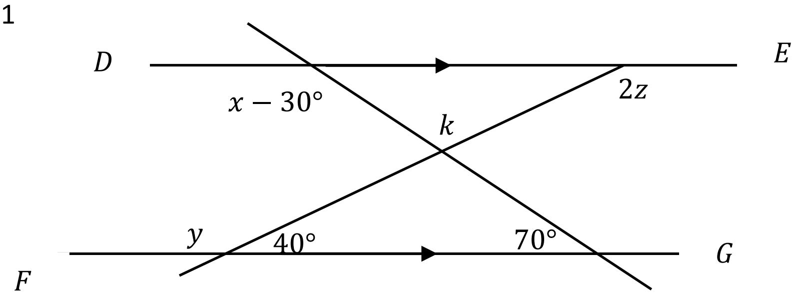
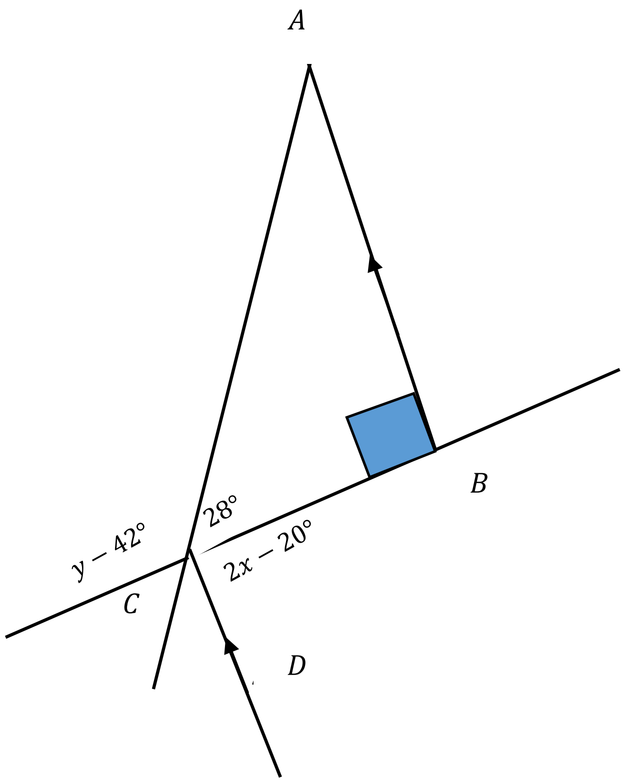
E-Classroom	Name: Memorandum					
	Gr 10		Date:		Time:	$1\frac{1}{2}$ *HR*
CAPS Reference	Euclidean Geometry					
Topic	Background					

2.1



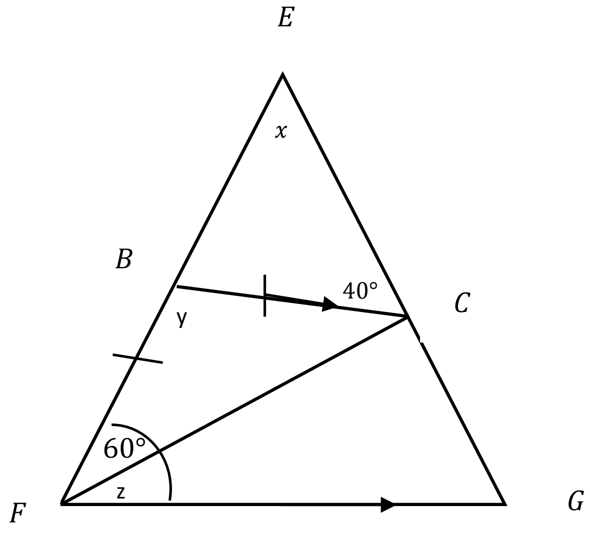
Statement	Reason
$x-30°+70°=180°$ $x=180°-40°$ $x=140°$	Co-interior ∠ DE//FG
$y=140°$	∠'s on a straight line
$2z=y$ $2z=140°$ $z=70°$	Alternating ∠s (DE//FG)
$k=(180°-40°-70°)$ $k=70°$	Vertical opposite ∠s and interior ∠'s of Δ

2.2



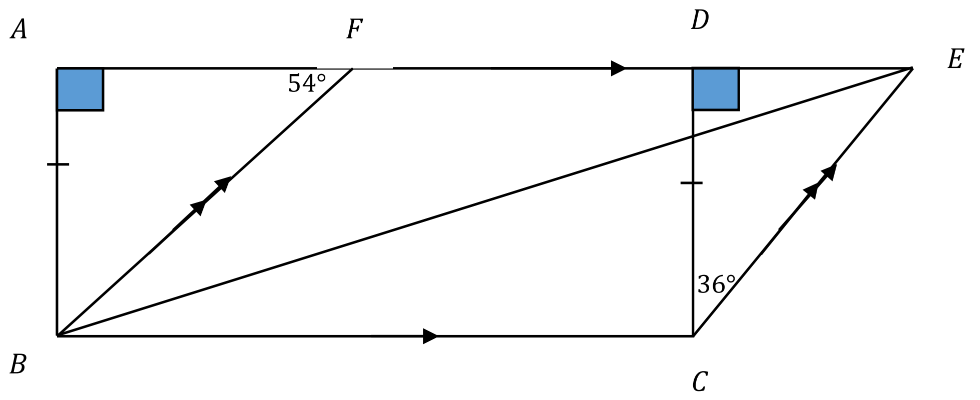
Statement	Reason
$y - 42° + 28° = 180°$ $y = 180° + 14°$ $y = 194°$	∠'s on a Straight line
$\hat{A} = 62°$	Interior ∠s of triangle
$2x - 20° = 90°$ $2x = 90° + 20°$ $2x = 110°$ $x = 55°$	Alternating ∠'s (AB//CD)

2.3



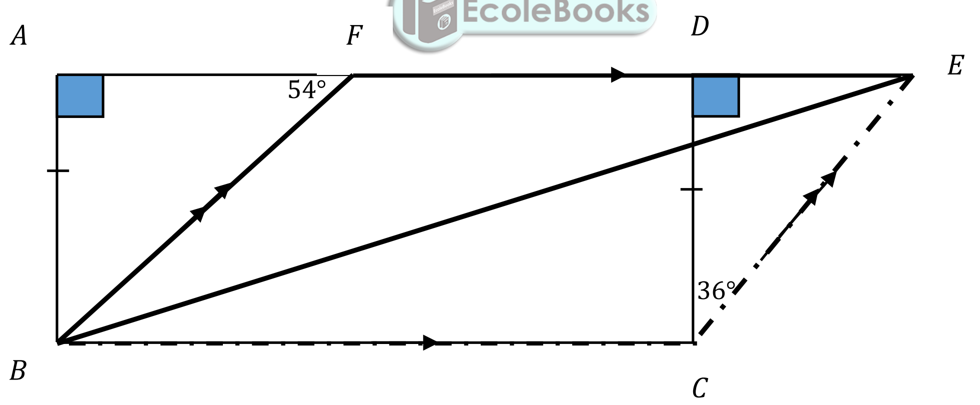
Statement	**Reason**
$\hat{G} = 40°$	Corresponding ∠s (FG//BC)
$x = 80°$	Interior ∠s of ΔEFG
$\therefore E\hat{B}C = 60°$ $y = 120°$	Corresponding ∠s (FG//BC) ∠s on a straight line
$\therefore B\hat{C}F = 30°$ $B\hat{C}F = z = 30°$	Isosceles ΔFBC Alternating ∠'s (FG//BC)

1.1.1



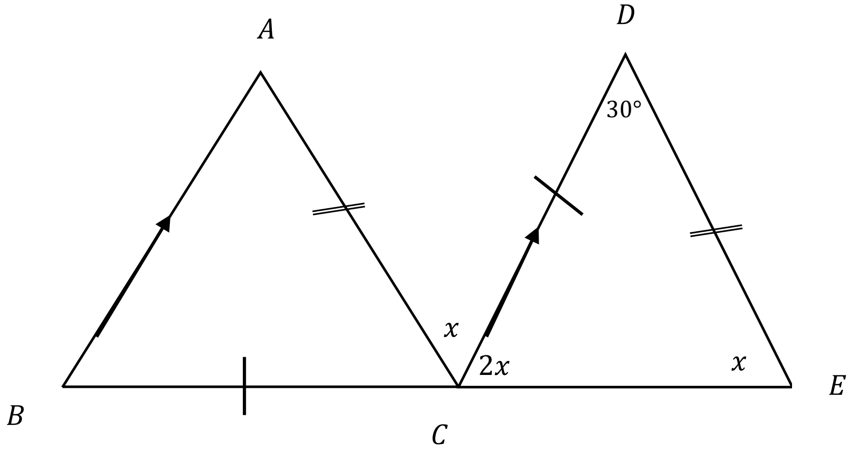
Statement	**Reason**
In ΔABF and ΔDCE 1) $\hat{A} = \hat{D} = 90°$ 2) $AB = DC$ 3) $\hat{E} = 180° - 90° - 36° = 54°$ $\therefore \hat{F} = \hat{E} = 54°$ $\therefore \Delta ABF \equiv \Delta DCE$	 Given Given Interior ∠s of ΔDCE Given A, A, S

1.1.2



Statement	**Reason**
In ΔFBE and ΔECB 1) $F\hat{B}E = B\hat{E}C$ 2) $BE = BE$ 3) $F\hat{E}B = E\hat{B}C$ $\therefore \Delta FBE \equiv \Delta ECB$	 Alternating ∠s (BF//CE) Common side Alternating ∠s (BC//FE) A, A, S

4.2



Statement	**Reason**
4.2.1 $2x + x + 30° = 180°$ $3x = 180° - 30°$ $x = 150° \div 3$ $x = 50°$	 Interior $\angle$s of ΔCDE
4.2.2 In ΔABC and ΔECD 1) $BC = CD$ 2) $AC = DE$ 3) $D\hat{E}C = D\hat{C}A = 50°$ $B\hat{A}C = D\hat{C}A = 50°$ $\therefore D\hat{E}C = B\hat{A}C = 50°$ $\therefore \Delta ABC \equiv \Delta ECD$	 Given Given Alternating $\angle$s BA//DE S, S, A