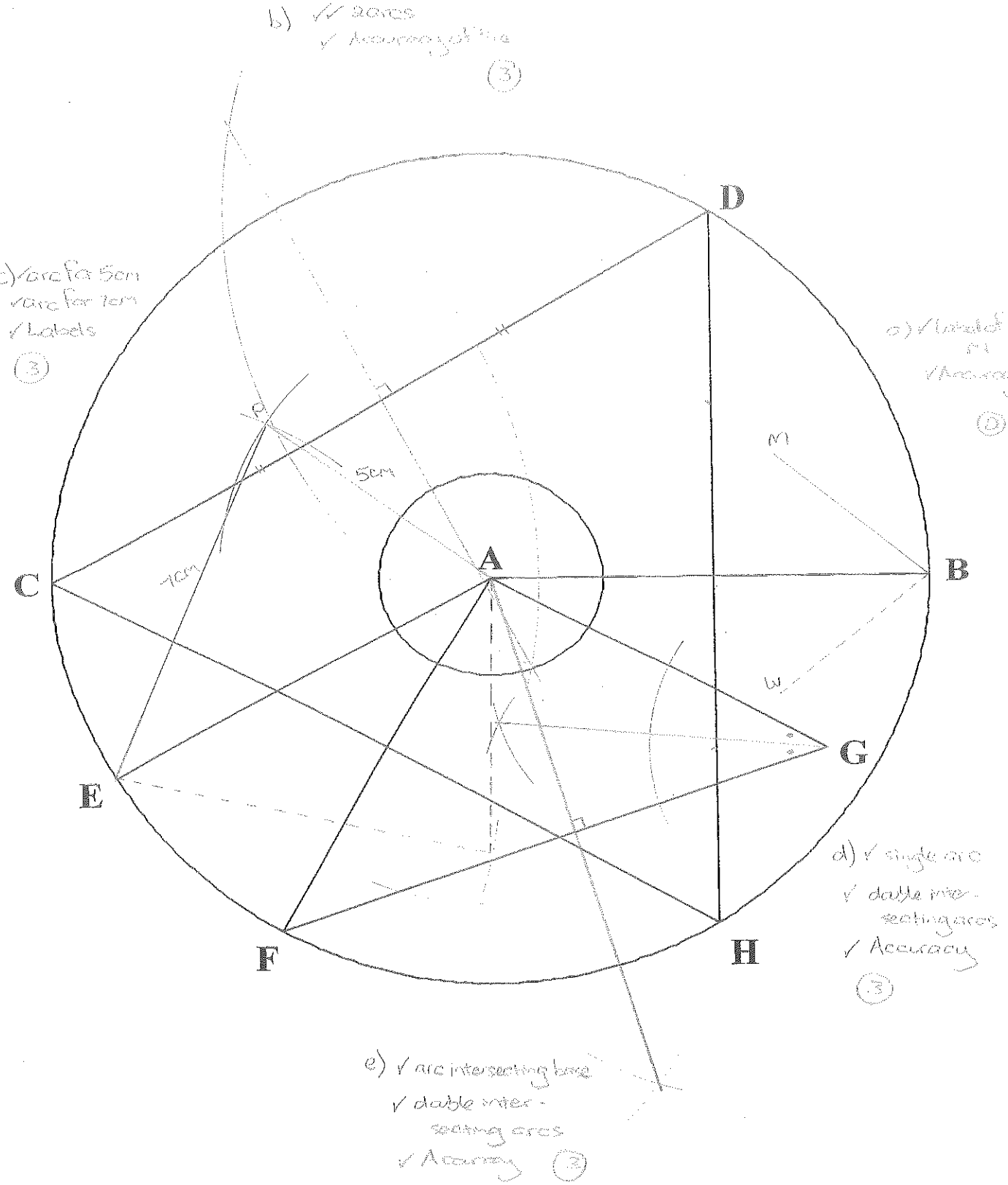
Name: Memo Teacher: ED SI WI ZE

Quest 2:



[14]

Gr 8 – June 2017 Paper 2 Memo

[110]

Quest 1:

a) reflex ✓
b) 8 ✓
c) the sum of the interior opposite angles ✓
d) supplementary ✓
e) 27° ✓
f) supplementary ✓
g) $3x - 38°$ ✓

(7)

Quest 3:

a) $x = 10°$ ✓ (∠s around pt) P
b) $\hat{BDC} = 12°$ (∠s on str. line BE) E
$x = 12°$ ✓ (corr. ∠s; AB // CD)
c) $x = 19°$ ✓ (∠ sum of △) ✓ N
d) $x = 15°$ ✓ (vert. opp. ∠s =) ✓ D
e) $x = 17°$ ✓ (∠ sum of quad) ✓ R
f) $x = 21°$ ✓ (co-int ∠s; // lines) ✓ A
g) $M\hat{P}O = 90°$ (diags of rhombus) ✓
$P\hat{O}M = 85°$ (diags of rhombus)
$x = 5°$ ✓ (∠ sum of △MPO) G
h) $C\hat{P}M = x$ (∠s opp. equal sides, radii)
$x = 14°$ ✓ (∠ sum of △CPM) O
i) $x = 7°$ ✓ (ext. ∠ of △) ✓ N

(18)

Quest 5:

a = 73° ✓ (∠s opp. equal sides; AB = AC) ✓
b = 34° ✓ (∠ sum of △ABC) ✓
c = 34° ✓ (vert. opp. ∠s are =) ✓
d = 87° ✓ (∠s on str. line MC) ✓
e = 73° ✓ (corr. ∠s; MC // HD) ✓
f = 86° ✓ (ext. ∠ of △MAL) ✓
g = 86° ✓ (alt. ∠s; ME // KF) ✓
h = 93° ✓ (co-int. ∠s; MC // HD) ✓
$J\hat{E}F = 93°$ (vert. opp. ∠s are =) ✓
$\therefore k = 102°$ ✓ (∠ sum of quad EFGJ)

(18)

If they make a mistake, mark positively from there on, carrying their mistake

Quest 6:

$M\hat{E}D = 17°$ ✓ (ext. ∠ of △MED)
$E\hat{H}G = 17°$ ✓ (alt. ∠s; ME // HG) ✓
$L\hat{V}K = 40°$ ✓ (corr. ∠s; HT // VK) ✓
$N\hat{L}K = 40°$ ✓ (corr. ∠s; DE // LN) ✓
$\therefore x = 50°$ ✓ (∠ sum of △LNK) ✓

(10)

Quest 7:

a) $a + 11° + 3a + 6° + 4a + 3° = 180°$ ✓ (∠ sum of △BAT)
$\therefore 8a + 20° = 180°$
$\therefore 8a = 160°$ ✓
$\therefore a = 20°$ ✓

(4)

b) $7b - 13° = b + 20° + 3b + 15°$ ✓ (ext. ∠ of △BAT)
$\therefore 7b - 13° = 4b + 35°$
$\therefore 3b - 13° = 35°$ ✓
$\therefore 3b = 48°$
$\therefore b = 16°$ ✓

(4)

c) $B\hat{A}T = 90° - C$ (∠s on str. line BE)
$\therefore 5C - 50° + 90° - C = 2C + 80°$ (ext. ∠ of △BAT)
$\therefore 4C + 40° = 2C + 80°$
$2C + 40° = 80°$
$2C = 40°$
$C = 20°$ ✓

(2)

Quest 8:

a) $3x + 54° = x + 76°$ (alt. ∠s; TE // OM)
$\therefore 2x + 54° = 76°$
$\therefore 2x = 16°$
$\therefore x = 8°$ ✓

(3)

b) $103° - 2y + y + 10° + 3y + 33° = 180°$ (co-int. ∠s; RT // WO)
$\therefore 2y + 146° = 180°$
$\therefore 2y = 34°$
$\therefore y = 17°$ ✓

(3)

c) $R\hat{A}W = 84°$ (∠ sum of △RAW) ✓
$\therefore x + y + z = 84°$ (alt. ∠s; RI // WM) ✓
$\therefore 8 + 17° + z = 84°$
$\therefore z = 59°$ ✓

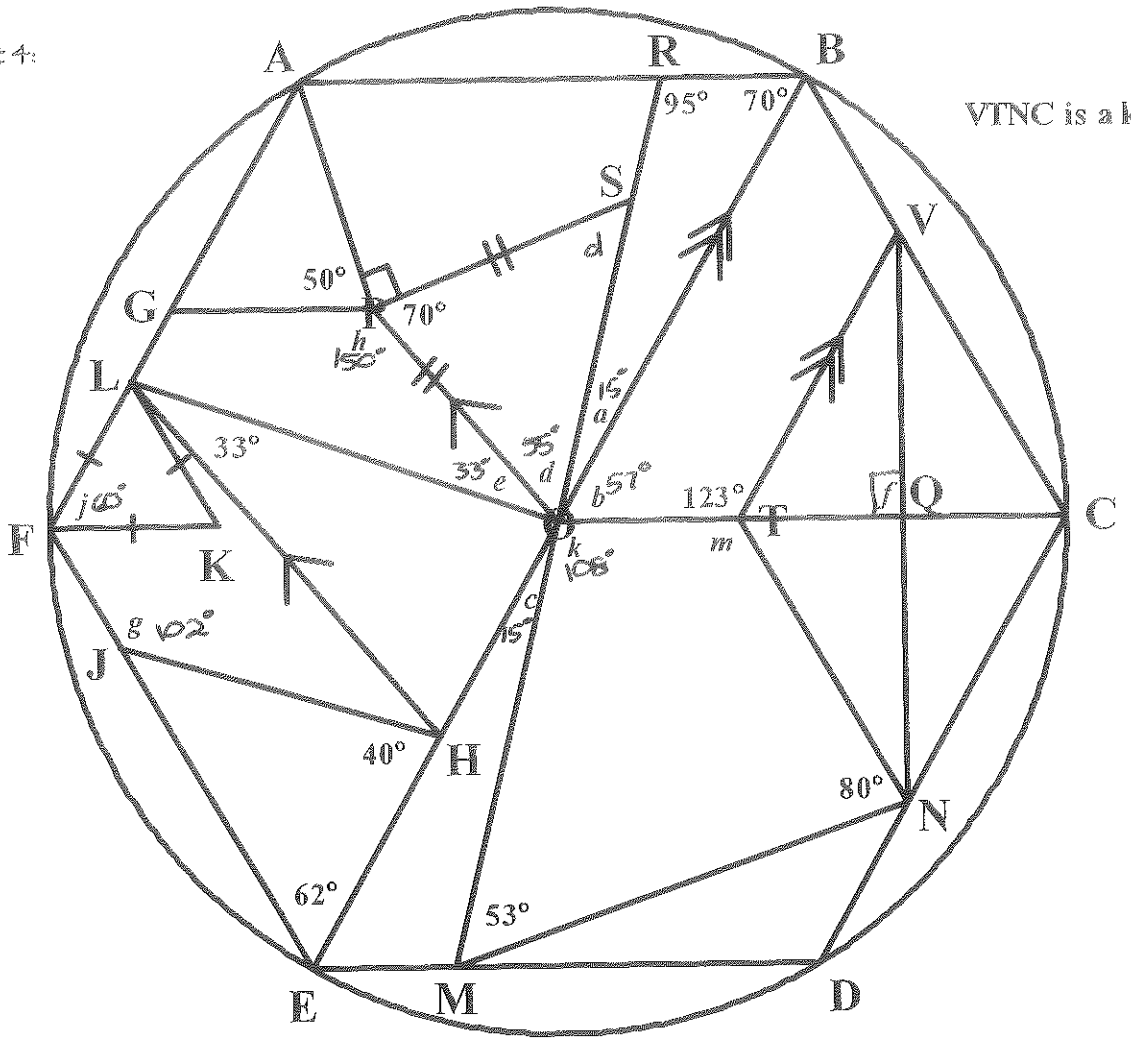
(3)

Quest 9:

g = 10° (∠ sum of △REA)
p = 15° (∠s around pt A)
t = 8° (alt. ∠s; UC // SN)
y = 12° (corr. ∠s; SA // LB)
a = 20° (vert. opp. ∠s =)
e = 1° (ext. ∠ of △GIN)
d = 50° (ext. ∠ of △DFG)
f = 10° } (∠ sum of △PDM
m = 8° } & ∠s on str. line BL)
$\therefore x = 16°$ (co-int. ∠s; WH // GF) ✓

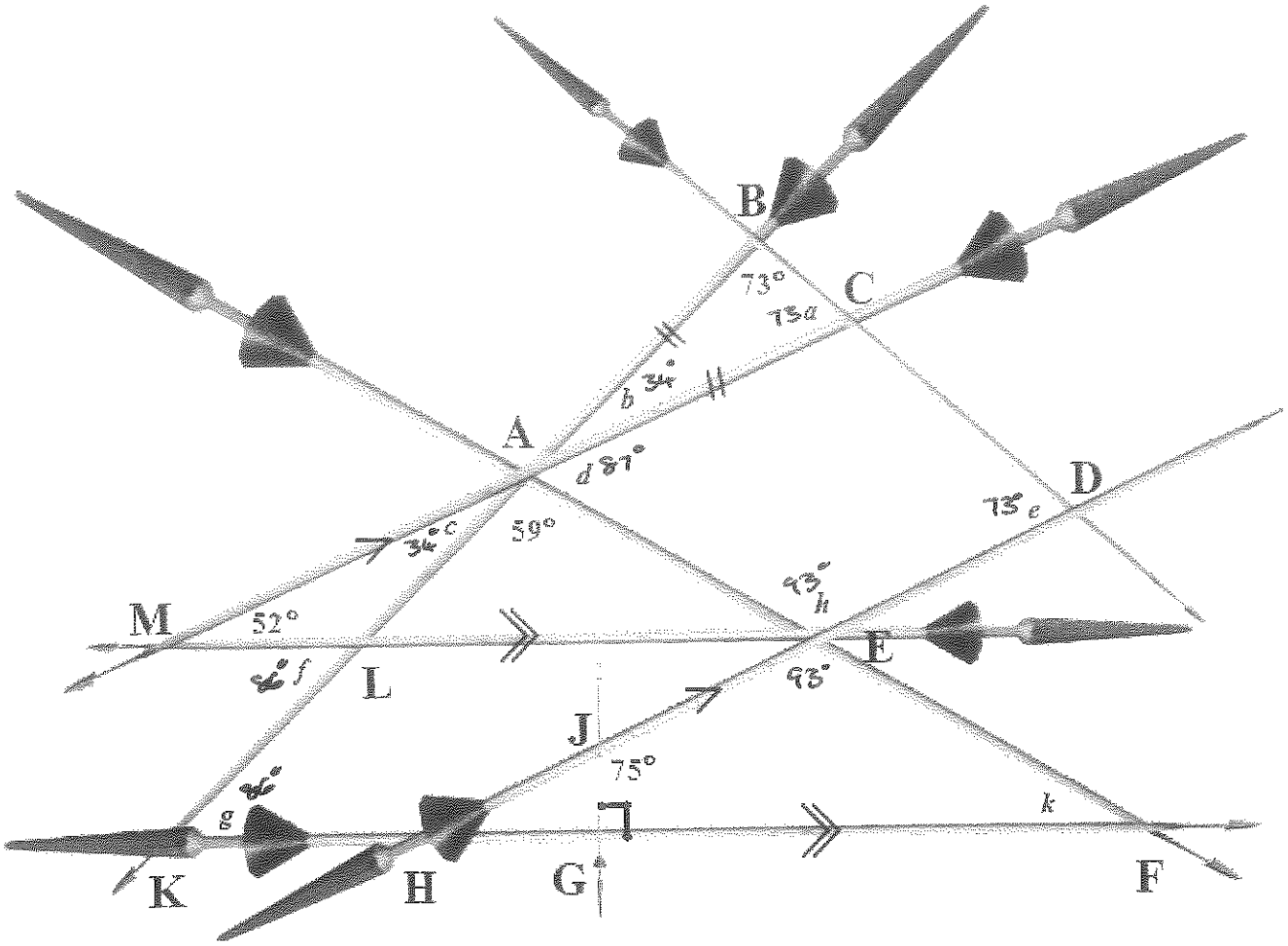
(2)

Quest 4:

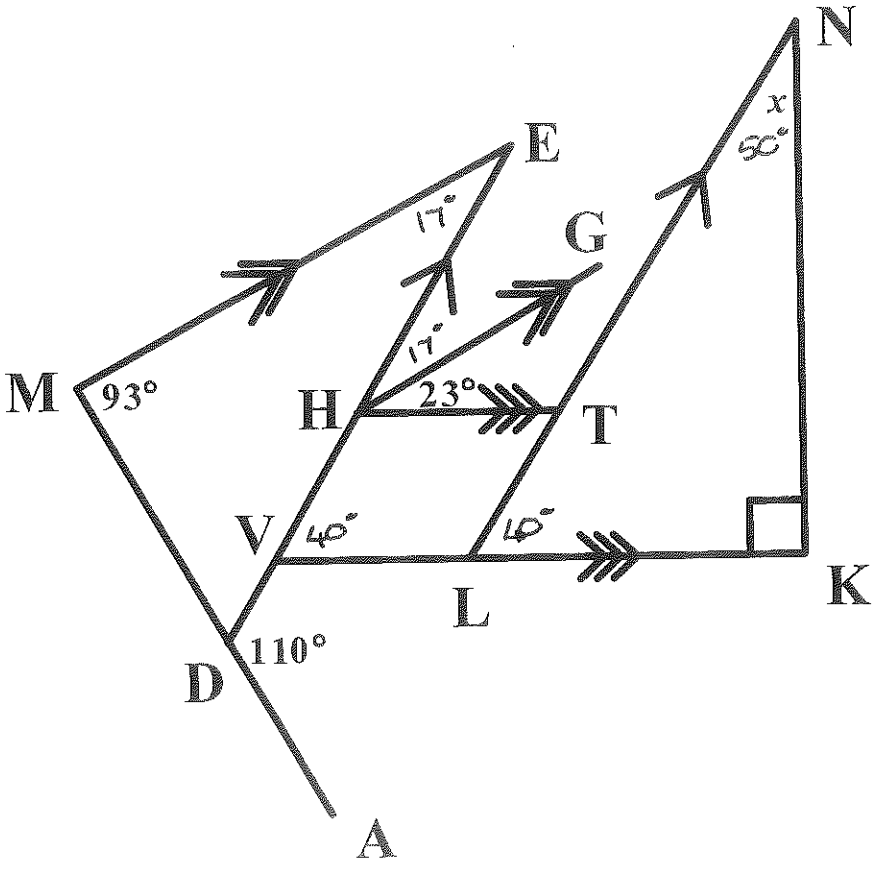


Value of angle	Reason
$a = 15°$ ✓	L sum of △ROG ✓
$b = 57°$ ✓	co-int. Ls ; EB // TV ✓
$c = 15°$ ✓	vert. opp. Ls are = ✓
$\hat{PSO} = d$	Ls opp. equal sides ; PS = PO ✓
$d = 55°$ ✓	L sum of △PSO
$e = 33°$ ✓	alt. Ls ; OP // HL ✓
$f = 90°$ ✓	diags of kite VTNC ✓
$g = 102°$ ✓	ext. L of △HJE ✓
$h = 150°$ ✓	Ls around pt P ✓
$j = 60°$ ✓	equilateral △FLK ✓
$k = 108°$ ✓	Ls on str. line RM ✓
$m = 119°$ ✓	L sum of quad OTNM ✓

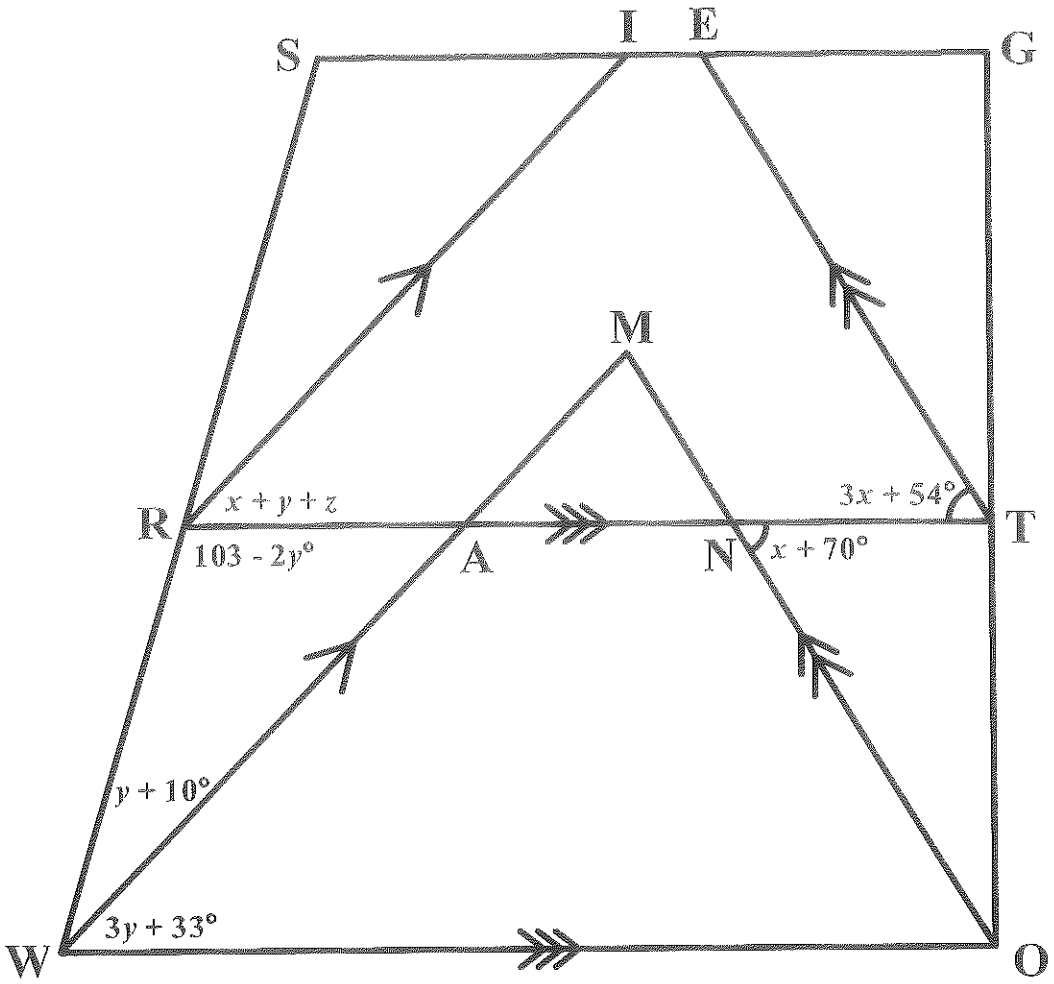
Quest 5:



Quest 6:



Quest 8:



Quest 9: