1 AB = 8

AD = 10

M∠A

Angle = 180 - 62

= 118°

2. M∠A

180 - 44

= 136°

M∠BCD

∠BCD = ∠BAD

= 136°

M∠CDE =

∠ABC = ∠BDA = 44°

180 - 44

= 136°

3 m∠DCA

∠DCB = 180 - 83

= 97

97° - 56°

= 41°

∠CAD

180 - (83 + 41)

= 56°

M∠CBA

∠CBA = ∠CBA

= 83°

4 ~~M∠ED~~

M∠ECD

180 - 110

= 70°

M∠AED

∠AED = BEC

= 110°

M∠ABD

180 - (70 + 70)

= 140°

5. M∠DAB = 80°

∠ABC - ?

180 - 80°

= 100°

6 ~~M∠127~~

M∠ADC = 127

∠CBA

∠CBA = ∠ADC

= 127°

For question 1-8

1 $DP = 4x+1$

$PA = x+13$

$DP = PA$

$4x+1 = x+13$

$4x-x = 13-1$

$3x = 12$

$x = 4$

$4(4)+1$

$= 17$

2. $DU = 5x-4$

$QP = 2x+7$

$\frac{1}{2} DU = QP$

$\frac{1}{2}(5x-4) = 2x+7$

$5x-4 = 4x+14$

$5x-4x = 14+4$

$x = 18$

$18(5)-4$

$= 86$

3 $m\angle 2 = 12x+4$

$m\angle 3 = 16x-12$

$12x+4 = 16x-12$

$12x-16x = -4-12$

$-4x = -16$

$x = 4$

$16(4)-12$

$= 52^\circ$

4 $M\angle 5 = 12x-3$

$\angle M6 = 10x+9$

$\angle 6 = \angle 5$

$12x-3 = 10x+9$

$12x-10x = 9+3$

$2x = 12$

$x = 6$

$10(6)+9)$

$= 69$

$M\angle 4 = 180-(\angle 5+\angle 6)$

$180-(69+69)$

$= 42^\circ$

5 $m\angle 4 = 6x-16$

$m\angle 8 = 2x+4$

$\angle 7 = 180 - \angle 4$

$180 - 6x-16$

$\angle 7 =$

$6x-16 = 3x$

$\frac{1}{2}$

$\frac{1}{2} x[180-(6x-16)]$

$90-3x-8$

$90-82-3x = 2x+4$

$8-3x = 2x-4$

$8+4 = 2x+3x$

$12 = 5x$

$x = 2.4$

$6(2.4)-16$

Number 5

$m\angle 4 = 6x-16$

$M\angle 8 = 2x+4$

$2(2x+4) = 6x-16$

$4x+8 = 6x-16$

$16+8 = 6x-4x$

$2x = 24$

$x = 12$

$6(12)-16$

$= 56^\circ$

6. $\angle 3 = 18x - 8$

$\angle 6 = 70 - 4x$

$70 - 4x + 18x - 8 = 90$

$18x - 4x = 90 - 70 + 8$

$14x = 28$

$x = 2$

$70 - 4(2)$

$70 - 8$

$= 62°$

7. $m\angle 2 = 32°$ DU = 12 DA

SOHCAHTOA

$12 \times \sin 32 = DA$

$DA = 6.36$

$12 \times \cos 32 = AU$

$AU = 10.18$

8. $OB = 2x + 1$

$BR = 3x - 10$

$OB = BR$

$2x + 1 = 3x - 10$

$2x - 3x = -10 - 1$

$-x = -11$

$x = 11$

$OR = 2(11) + 1$

$22 + 1 = 23$

23×2

$= 46.$

9. $RM = 18$

$RM = RH = OH = OM$

$RH = 18$

$OH = 18$

$OM = 18$

10. $m\angle 2 = 48$ $\angle MOH$

$\angle MOH = 2\angle 2.$

$= 2(48°)$

$= 96.$

11. $m\angle 7 = 61$ $m\angle RHO$

$\angle 6 = 90 - \angle 7$

$90 - 61$

$29°$

$RHO = 29 \times 2$

$= 58°$

12. $AE = 3x - 2$ $EC = 2x + 3$

DB

$3x - 2 = 2x + 3$

$3x - 2x = 3 + 2.$

$x = 5$

$3(5) - 2$

13×2

$= 26$

13. $AB = 2x - 1$ $BC = 5x - 13$

$2x - 1 = 5x - 13$

$13 - 1 = 5x - 2x$

$12 = 3x$ $x = 4$

$2(4) - 1 = 9$

$AB = 9 = BC = 9 = AB = 9 = AC = 9$