

## Pairs of Angles

1. a)  $20^\circ$  b)  $45^\circ$  c)  $116^\circ$  d)  $55^\circ$

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1. a) Supplementary	2. a) $\angle BCG$ $\angle GCD$
b) opposite	b) $\angle BCG$ $\angle ACD$
c) complementary	c) $\angle CAD$ $\angle EAD$
d) Supplementary	d) $\angle CDA$ $\angle ADF$

3. a)  $60^\circ$  b)  $25^\circ$  c)  $48^\circ$  d)  $82^\circ$

4. a)  $150^\circ$  b)  $35^\circ$  c)  $82^\circ$  d)  $21^\circ$

5. a)  $57^\circ$  b)  $29^\circ$  c)  $65^\circ$  d)  $35^\circ$  e)  $y = 86^\circ$  OAT  
 $x = 94^\circ$  SAT  
 f)  $x = 90^\circ$  SAT  $y = 90^\circ$  OAT

6. a)  $x = 45^\circ$  CAT c)  $78^\circ$  SAT e)  $40^\circ$  OAT  
 b)  $x = 50^\circ$  SAT d)  $55^\circ$  CAT f)  $30^\circ$  OAT

# Parallel Lines

1. a) d, e c, f      b) r, o n, s

2. a)  $\left. \begin{matrix} a, e & f, b \\ c, g & d, h \end{matrix} \right\}$  corresponding  $\left. \begin{matrix} (b) m, o & n, p \\ q, s & r, t \end{matrix} \right\}$

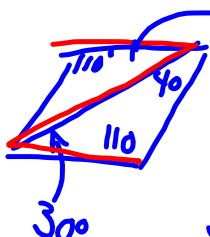
$\left. \begin{matrix} e, c & f, d \end{matrix} \right\}$  co-interior  $\left. \begin{matrix} n, o & r, s \end{matrix} \right\}$   
 $= 180^\circ$

3. a)  $x = 65^\circ$  CA      b)  $x = 30^\circ$  CA      c)  $y = 70^\circ$  CIA  
 $y = 115^\circ$  SAT       $y = 30^\circ$  OAT       $x = 110^\circ$  SAT

d)  $x = 130^\circ$  AIA  
 $y = 50^\circ$  SAT

4. a)  $123^\circ$  SAT      b)  $123^\circ$  CA      c)  $57^\circ$  OAT

d)  $180 - 57 = 123$  CIA      e)  $123^\circ$  OAT      f)  $57^\circ$  AIA

5. a)   $x = 30^\circ$  SATT  
~~AIA~~  
 $y = 110^\circ$  CIA

b)  $y = 54^\circ$  SATT  
 $x = 38^\circ$  AIA

c)  $x = 90^\circ$  CIA      d)  $x = 70^\circ$  OAT  
 $y = 90^\circ$  CIA       $y = 55^\circ$  AIA