

**Pairs of Angles Page 2 Solutions**

**Part A:** 1.a)  $\angle BFC$  &  $\angle BFA$  b)  $\angle DFE$  &  $\angle AFE$  c)  $\angle AFC$  d)  $\angle AFB$  e)  $\angle AFE$  f)  $\angle EFA$  long way g)  $\angle DFE$  &  $\angle AFB$  2.a)  $30^\circ$  CAT b)  $70^\circ$  SAT c)  $x=110^\circ$  SAT,  $y=70^\circ$  OAT d)  $x=60^\circ$  SAT,  $y=120^\circ$  SAT

**Part B:** 1.a) supplementary b) opposite c) supplementary d) complementary 2.a)  $\angle SPU$  b)  $\angle UPR$  c)  $\angle UPT$  Long way around d)  $\angle TPU$  &  $\angle QPR$  e)  $\angle TPU$  &  $\angle TPS$  f)  $\angle TPU$  &  $\angle TPR$

3.

	Angle	Complement	Supplement
a		$50^\circ$	$140^\circ$
b		$18^\circ$	$108^\circ$
c		$74^\circ$	$164^\circ$
d		$0^\circ$	$90^\circ$
e		-----	$80^\circ$
f	$70^\circ$		$110^\circ$
g	$60^\circ$	$30^\circ$	
h	$135^\circ$	-----	

4.a)  $18^\circ$  CAT b)  $116^\circ$  SAT c)  $x=138^\circ$  SAT,  $y=42^\circ$  OAT d)  $x=50^\circ$  SAT,  $y=40^\circ$  CAT e)  $x=25^\circ$  CAT f)  $x=122^\circ$  SAT,  $z=122^\circ$  SAT,  $y=58^\circ$  OAT g)  $x=58^\circ$  SAT,  $y=61^\circ$  OAT h)  $x=50^\circ$  SAT i)  $30^\circ$  OAT j)  $x=50^\circ$  CAT,  $y=150^\circ$  SAT k)  $x=5^\circ$  SAT,  $y=165^\circ$  OAT l)  $x=25^\circ$  CAT,  $y=70^\circ$  OAT 5.a)  $90 - x$  b)  $180 - x$  c)  $180 - (90 - x) = 90 + x$

**Part C:** 2.a)  $x=110^\circ$  OAT,  $y=70^\circ$  SAT,  $z=110^\circ$  AIA b)  $x=65^\circ$  CIA,  $y=65^\circ$  OAT,  $z=115^\circ$  OAT c)  $x=50^\circ$  CIA,  $y=50^\circ$  CIA,  $z=50^\circ$  AIA d)  $x=115^\circ$  CIA,  $y=35^\circ$  AIA e)  $x=28^\circ$  AIA,  $y=47^\circ$  CIA f)  $x=105^\circ$  SAT,  $y=75^\circ$  AIA,  $z=105^\circ$  CIA g)  $x=110^\circ$  CA,  $w=70^\circ$  SAT,  $z=70^\circ$  AIA