

Angles

Complementary and Supplementary Angles

LI

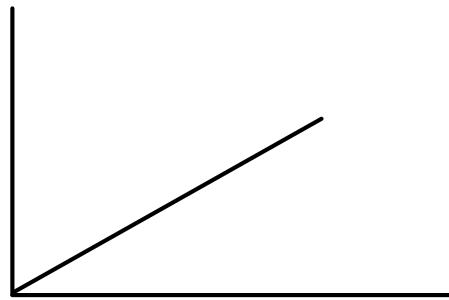
- Find missing Complementary and Supplementary angles.

SC

- +, - numbers.

Complementary Angles

Angles that add up to 90° are called Complementary

Example 1

Find the complement of 37° .

$$\begin{array}{r} \cancel{8} \cancel{1} \\ \cancel{9} 0^\circ \\ - 3 7^\circ \\ \hline 5 3^\circ \end{array}$$

53 $^\circ$

Example 2

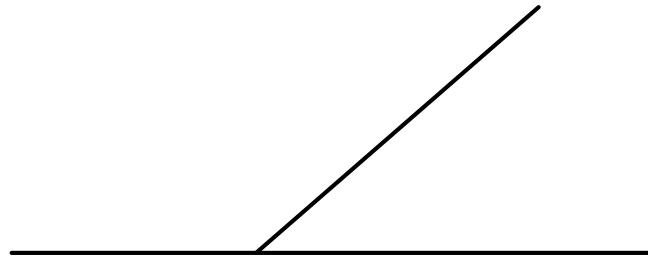
Find the complement of 28.4° .

$$\begin{array}{r} \cancel{8} \cancel{1} \cancel{9} \cancel{1} \\ \cancel{9} 0.0^\circ \\ - 2 8.4^\circ \\ \hline 6 1.6^\circ \end{array}$$

61.6 $^\circ$

Supplementary Angles

Angles that add up to 180° are called Supplementary

Example 3

Find the supplement of 48° .

$$\begin{array}{r}
 1 \cancel{8}^{\cancel{7}\cancel{1}} 0^\circ \\
 - \quad 4 8^\circ \\
 \hline
 1 3 2^\circ
 \end{array}$$

132°

Example 4

Find the supplement of 104.6° .

$$\begin{array}{r}
 1 \cancel{8}^{\cancel{7}\cancel{1}\cancel{9}\cancel{1}} 0.0^\circ \\
 - \quad 1 0 4 . 6^\circ \\
 \hline
 7 5 . 4^\circ
 \end{array}$$

75.4°

Find the complements of these angles	Find the supplements of these angles
1) 50°	1) 127°
11) 78.2°	11) 127.6°
2) 41°	2) 62°
12) 43.7°	12) 62.5°
3) 45°	3) 98°
13) 45.5°	13) 100.5°
4) 65°	4) 99°
14) 63.9°	14) 97.3°
5) 37°	5) 75°
15) 82.4°	15) 65.1°
6) 19°	6) 12°
16) 13.7°	16) 145.8°
7) 55°	7) 106°
17) 33.3°	17) 114.4°
8) 56°	8) 83°
18) 65.2°	18) 99.2°
9) 66°	9) 44°
19) 54.1°	19) 3.9°
10) 12°	10) 77°
20) 77.9°	20) 104.6°

Answers

1) $50^\circ 40^\circ$	11) $78.2^\circ 11.8^\circ$	1) $127^\circ 53^\circ$	11) $127.6^\circ 52.4^\circ$
2) $41^\circ 49^\circ$	12) $43.7^\circ 46.3^\circ$	2) $62^\circ 118^\circ$	12) $62.5^\circ 117.5^\circ$
3) $45^\circ 45^\circ$	13) $45.5^\circ 44.5^\circ$	3) $98^\circ 82^\circ$	13) $100.5^\circ 79.5^\circ$
4) $65^\circ 25^\circ$	14) $63.9^\circ 26.1^\circ$	4) $99^\circ 81^\circ$	14) $97.3^\circ 82.7^\circ$
5) $37^\circ 53^\circ$	15) $82.4^\circ 7.6^\circ$	5) $75^\circ 105^\circ$	15) $65.1^\circ 114.9^\circ$
6) $19^\circ 71^\circ$	16) $13.7^\circ 76.3^\circ$	6) $12^\circ 168^\circ$	16) $145.8^\circ 34.2^\circ$
7) $55^\circ 35^\circ$	17) $33.3^\circ 56.7^\circ$	7) $106^\circ 74^\circ$	17) $114.4^\circ 65.6^\circ$
8) $56^\circ 34^\circ$	18) $65.2^\circ 24.8^\circ$	8) $83^\circ 97^\circ$	18) $99.2^\circ 80.8^\circ$
9) $66^\circ 24^\circ$	19) $54.1^\circ 35.9^\circ$	9) $44^\circ 136^\circ$	19) $3.9^\circ 176.1^\circ$
10) $12^\circ 78^\circ$	20) $77.9^\circ 12.1^\circ$	10) $77^\circ 103^\circ$	20) $104.6^\circ 75.4^\circ$

R E C A P

True	False

Supplement of 17° is 163° Complement of 83° is 97° Complement of 17° is 163° Supplement of 83° is 7° Complement of 83° is 7° Supplement of 83° is 97° Complement of 17° is 73°

H O M E W O R K

- 1) Find the angle complementary to 45.875543° .

- 2) Find the angle supplementary to 122.042667° .

H O M E W O R K**44 . 124 457°**

1) Find the angle complementary to $45 . 875 543^\circ$.

2) Find the angle supplementary to $122 . 042 667^\circ$.

57 . 957 333°