



Complementary & Supplementary Angles

Name _____

Score _____

CS:20

- 1) Angle y and z are supplementary angles. If $m\angle z = (2x - 3)^\circ$ and $m\angle y = (x - 27)^\circ$, find the value of x, $m\angle y$ and $m\angle z$.

- 2) Angle 5 and 6 are complementary angles. If $m\angle 5 = (11x)^\circ$ and $m\angle 6 = (7x)^\circ$, find the value of x, $m\angle 5$ and $m\angle 6$.

- 3) Angle 7 and 8 are supplementary angles. If $m\angle 7 = 30^\circ$ and $m\angle 8 = (x + 1)^\circ$, find the value of x and $m\angle 8$.

- 4) Angle g and h are complementary angles. If $m\angle h = (x - 5)^\circ$ and $m\angle g = 45^\circ$, find the value of x and $m\angle h$.

- 5) Angle 1 and 2 are supplementary angles. If $m\angle 2 = 105^\circ$ and $m\angle 1 = (2x + 3)^\circ$, find the value of x.



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Answer key

CS:20

- 1) Angle y and z are supplementary angles. If $m\angle z = (2x - 3)^\circ$ and $m\angle y = (x - 27)^\circ$, find the value of x, $m\angle y$ and $m\angle z$.

$x = 70 ; m\angle y = 43^\circ ; m\angle z = 137^\circ$

- 2) Angle 5 and 6 are complementary angles. If $m\angle 5 = (11x)^\circ$ and $m\angle 6 = (7x)^\circ$, find the value of x, $m\angle 5$ and $m\angle 6$.

$x = 5 ; m\angle 5 = 55^\circ ; m\angle 6 = 35^\circ$

- 3) Angle 7 and 8 are supplementary angles. If $m\angle 7 = 30^\circ$ and $m\angle 8 = (x + 1)^\circ$, find the value of x and $m\angle 8$.

$x = 149 ; m\angle 8 = 150^\circ$

- 4) Angle g and h are complementary angles. If $m\angle h = (x - 5)^\circ$ and $m\angle g = 45^\circ$, find the value of x and $m\angle h$.

$x = 50 ; m\angle h = 45^\circ$

- 5) Angle 1 and 2 are supplementary angles. If $m\angle 2 = 105^\circ$ and $m\angle 1 = (2x + 3)^\circ$, find the value of x.

$x = 36$