Find the number of integer solutions

$X + Y + Z + U + V + W = 23$
$X \geq 2, Y \geq 0, Z \geq 6, U \geq 10, V \geq 8, W \geq -7$

Number of Solutions:

$X + Y + Z + U = 6$
$X \geq -8, Y \geq 7, Z \geq 10, U \geq -6$

Number of Solutions:

$X + Y + Z + U + V + W = -19$
$X \geq 1, Y \geq 0, Z \geq -3, U \geq -1, V \geq -9, W \geq -9$

Number of Solutions:

$X + Y + Z + U = 19$
$X \geq 7, Y \geq -1, Z \geq -3, U \geq 9$

Number of Solutions:

$X + Y + Z = 25$
$X \geq 10, Y \geq -2, Z \geq 10$

Number of Solutions:

$X + Y + Z + U = 5$
$X \geq -2, Y \geq -1, Z \geq 6, U \geq -3$

Number of Solutions:

$X + Y + Z = 3$
$X \geq -5$, $Y \geq -4$, $Z \geq 7$

Number of Solutions:

$X + Y + Z + U + V + W = -24$
$X \geq 2$, $Y \geq -10$, $Z \geq -4$, $U \geq -9$, $V \geq -3$, $W \geq -5$

Number of Solutions:

$X + Y + Z + U = -9$
$X \geq 2$, $Y \geq -2$, $Z \geq -5$, $U \geq -7$

Number of Solutions:

$X + Y + Z + U + V + W = 15$
$X \geq 1$, $Y \geq 4$, $Z \geq 6$, $U \geq 7$, $V \geq -6$, $W \geq 2$

Number of Solutions:

$X + Y + Z + U = 14$
$X \geq -3$, $Y \geq 4$, $Z \geq 3$, $U \geq 3$

Number of Solutions:

$X + Y + Z + U = -21$
$X \geq -5$, $Y \geq -9$, $Z \geq -10$, $U \geq 0$

Number of Solutions:

$X + Y + Z + U + V + W = 6$
$X \geq 2$, $Y \geq -7$, $Z \geq 1$, $U \geq 2$, $V \geq 6$, $W \geq -3$

Number of Solutions:

$X + Y + Z + U = 9$
$X \geq 0$, $Y \geq 5$, $Z \geq -2$, $U \geq 0$

Number of Solutions:

$X + Y + Z + U = 10$
$X \geq 8$, $Y \geq -6$, $Z \geq -4$, $U \geq 9$

Number of Solutions:

$X + Y + Z + U = 0$
$X \geq 5$, $Y \geq -8$, $Z \geq 5$, $U \geq -7$

Number of Solutions:

$X + Y + Z + U = 7$
$X \geq -7$, $Y \geq 5$, $Z \geq 4$, $U \geq 1$

Number of Solutions:

$X + Y + Z + U + V = -29$
$X \geq -1$, $Y \geq -8$, $Z \geq -4$, $U \geq -10$, $V \geq -9$

Number of Solutions:

$X + Y + Z = 23$
$X \geq 5, Y \geq 10, Z \geq 4$

Number of Solutions:

$X + Y + Z = 7$
$X \geq 3, Y \geq 1, Z \geq -5$

Number of Solutions:

$X + Y + Z = -4$
$X \geq -9, Y \geq 6, Z \geq -9$

Number of Solutions:

$X + Y + Z + U = 5$
$X \geq 4, Y \geq 1, Z \geq -1, U \geq -6$

Number of Solutions:

$X + Y + Z + U + V + W = 31$
$X \geq 7, Y \geq 1, Z \geq -2, U \geq 9, V \geq 7, W \geq 8$

Number of Solutions:

$X + Y + Z + U + V + W = 4$
$X \geq 5, Y \geq -4, Z \geq 6, U \geq -4, V \geq 2, W \geq -4$

Number of Solutions:

$X + Y + Z + U + V = 33$
$X \geq 10$, $Y \geq -2$, $Z \geq 9$, $U \geq 7$, $V \geq 3$

Number of Solutions:

$X + Y + Z = 24$
$X \geq 0$, $Y \geq 9$, $Z \geq 8$

Number of Solutions:

$X + Y + Z + U + V = 9$
$X \geq -6$, $Y \geq 3$, $Z \geq 5$, $U \geq 5$, $V \geq 0$

Number of Solutions:

$X + Y + Z + U = 14$
$X \geq 9$, $Y \geq -7$, $Z \geq 2$, $U \geq 3$

Number of Solutions:

$X + Y + Z + U + V + W = 15$
$X \geq 10$, $Y \geq -4$, $Z \geq 4$, $U \geq 2$, $V \geq 7$, $W \geq -5$

Number of Solutions:

$X + Y + Z + U + V = 23$
$X \geq 0$, $Y \geq -2$, $Z \geq 2$, $U \geq 10$, $V \geq 10$

Number of Solutions:

$X + Y + Z + U + V = 5$
$X \geq -8$, $Y \geq -1$, $Z \geq 7$, $U \geq 7$, $V \geq -6$

Number of Solutions:

$X + Y + Z + U + V = 17$
$X \geq 9$, $Y \geq 7$, $Z \geq -1$, $U \geq -6$, $V \geq 2$

Number of Solutions:

$X + Y + Z + U = 5$
$X \geq 1$, $Y \geq 1$, $Z \geq -1$, $U \geq -2$

Number of Solutions:

$X + Y + Z + U = 18$
$X \geq 4$, $Y \geq -1$, $Z \geq 3$, $U \geq 5$

Number of Solutions:

$X + Y + Z + U + V = -2$
$X \geq -9$, $Y \geq 10$, $Z \geq -10$, $U \geq -4$, $V \geq 8$

Number of Solutions:

$X + Y + Z + U + V = 19$
$X \geq 10$, $Y \geq -4$, $Z \geq 3$, $U \geq 10$, $V \geq -2$

Number of Solutions:

$X + Y + Z + U = 6$
$X \geq 7$, $Y \geq 5$, $Z \geq -9$, $U \geq -4$

Number of Solutions:

$X + Y + Z + U = 18$
$X \geq 8$, $Y \geq -2$, $Z \geq 8$, $U \geq 1$

Number of Solutions:

$X + Y + Z + U = 14$
$X \geq -1$, $Y \geq 8$, $Z \geq 2$, $U \geq -1$

Number of Solutions:

$X + Y + Z + U + V = 12$
$X \geq -4$, $Y \geq 9$, $Z \geq -5$, $U \geq 6$, $V \geq 4$

Number of Solutions:

$X + Y + Z + U = 25$
$X \geq 5$, $Y \geq -1$, $Z \geq 8$, $U \geq 8$

Number of Solutions:

$X + Y + Z + U + V = 31$
$X \geq 8$, $Y \geq 0$, $Z \geq 7$, $U \geq 5$, $V \geq 5$

Number of Solutions:

$X + Y + Z + U + V = -9$
$X \geq -5, Y \geq 8, Z \geq 3, U \geq -7, V \geq -10$

Number of Solutions:

$X + Y + Z + U + V + W = 5$
$X \geq 9, Y \geq -7, Z \geq -10, U \geq 10, V \geq -7, W \geq 9$

Number of Solutions:

$X + Y + Z + U = -15$
$X \geq -9, Y \geq 2, Z \geq -2, U \geq -9$

Number of Solutions:

$X + Y + Z + U + V + W = 26$
$X \geq -3, Y \geq 7, Z \geq 4, U \geq 8, V \geq 3, W \geq 3$

Number of Solutions:

$X + Y + Z + U + V = -6$
$X \geq -2, Y \geq 3, Z \geq -2, U \geq -4, V \geq -4$

Number of Solutions:

$X + Y + Z = 6$
$X \geq -2, Y \geq 8, Z \geq -7$

Number of Solutions:

$X + Y + Z + U = 16$
$X \geq 4$, $Y \geq 2$, $Z \geq 10$, $U \geq -7$

Number of Solutions:

$X + Y + Z + U + V + W = 6$
$X \geq 2$, $Y \geq 2$, $Z \geq -7$, $U \geq -2$, $V \geq -1$, $W \geq 7$

Number of Solutions: