

Christmas Graphs

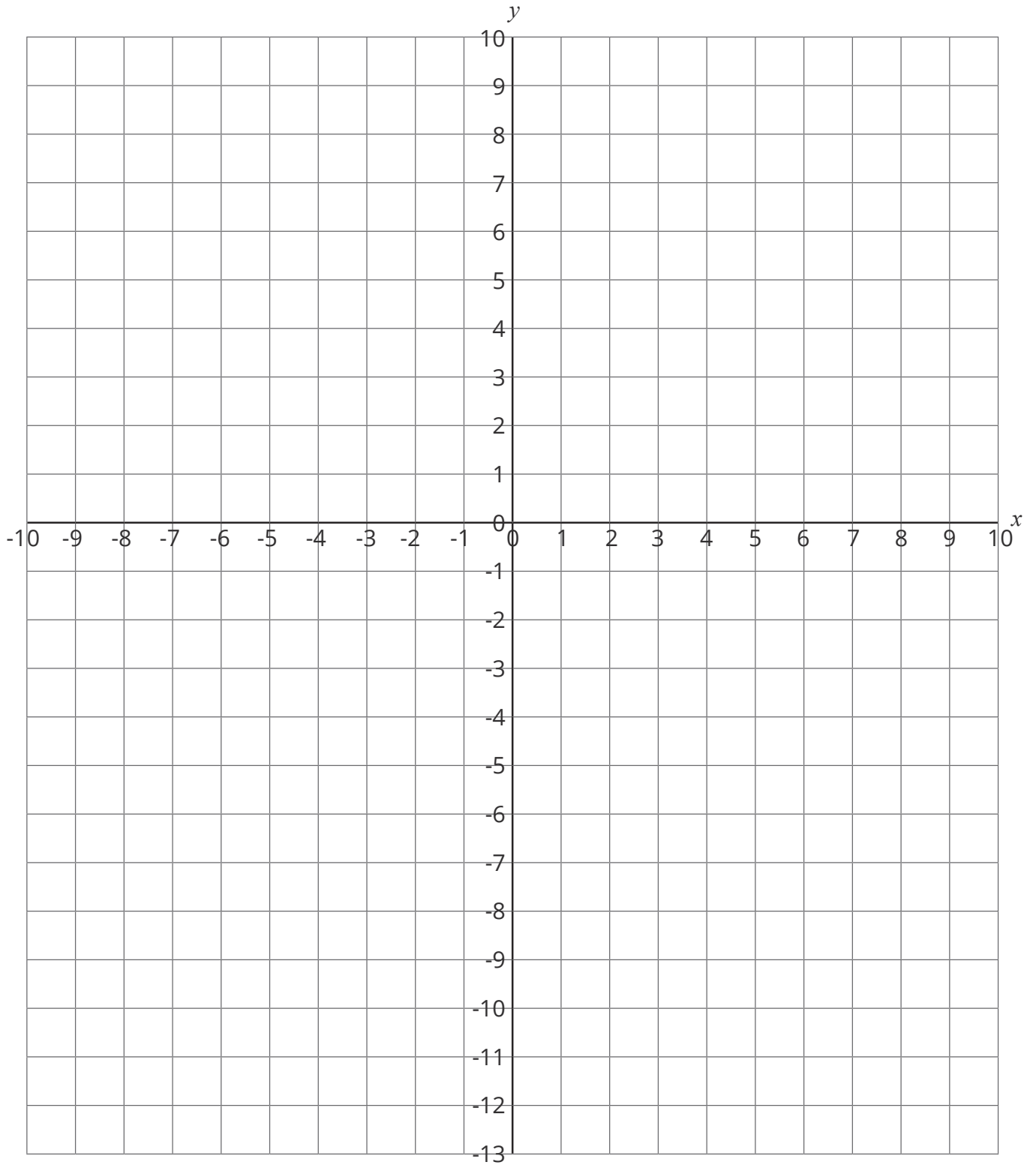
Instructions

Draw a pair of axes from $-10 \leq x \leq 10$ and $-13 \leq y \leq 10$ and draw the following graphs to reveal a Christmas picture.

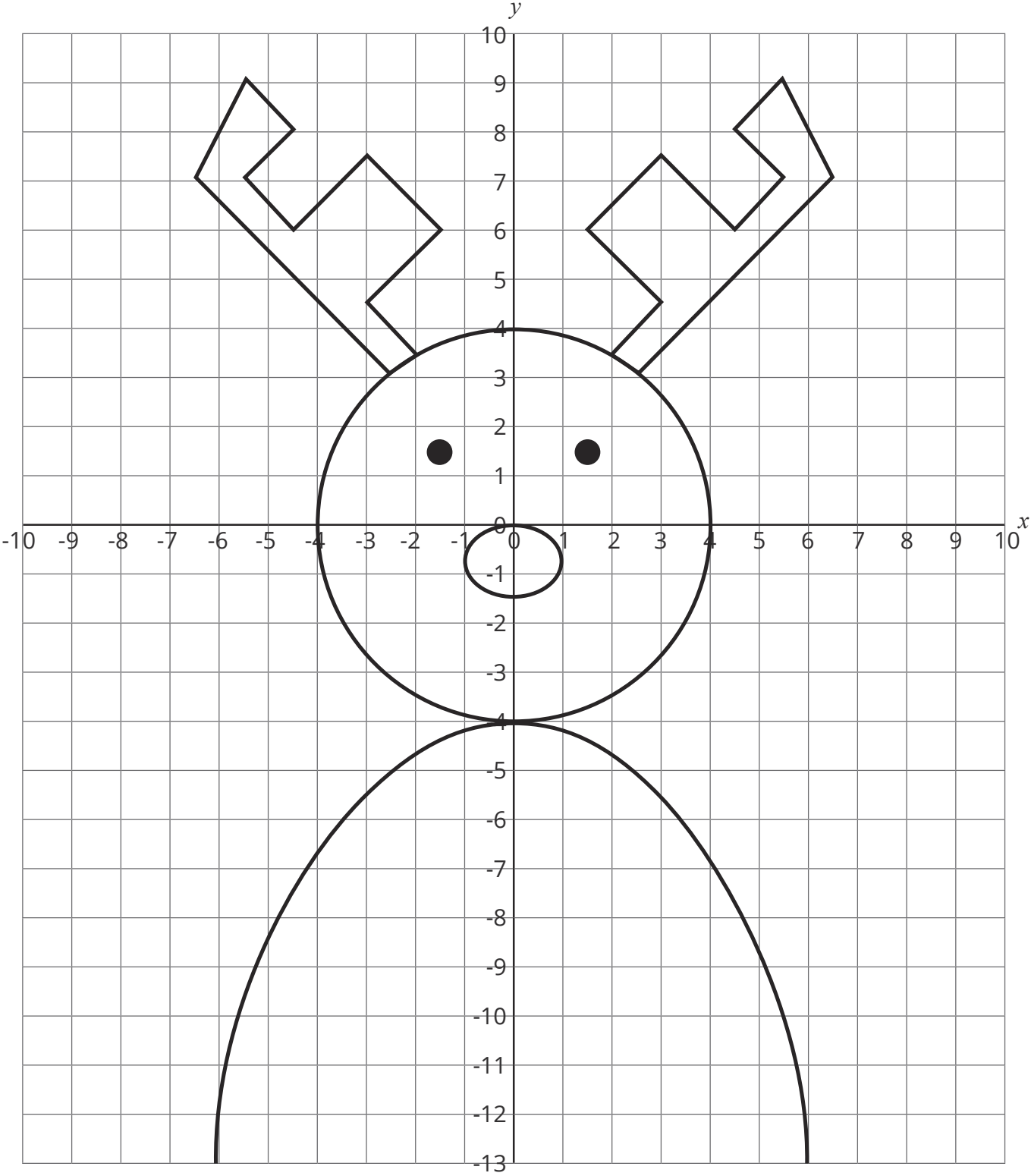
$x^2 + y^2 = 16$	
$y = x + 0.6$	$2.5 \leq x \leq 6.5$
$y = 0.6 - x$	$-6.5 \leq x \leq -2.5$
$y = x + 1.5$	$2 \leq x \leq 3$ and $4.5 \leq x \leq 5.5$
$y = 1.5 - x$	$-3 \leq x \leq -2$ and $-5.5 \leq x \leq -4.5$
$y = 2x + 20.1$	$-6.5 \leq x \leq -5.5$
$y = 20.1 - 2x$	$5.5 \leq x \leq 6.5$
$y = x + 3.6$	$4.5 \leq x \leq 5.5$
$y = 3.6 - x$	$-5.5 \leq x \leq -4.5$
$y = 12.6 - x$	$4.5 \leq x \leq 5.5$
$y = x + 12.6$	$-5.5 \leq x \leq -4.5$
$y = x + 10.5$	$-4.5 \leq x \leq -3$
$y = 10.5 - x$	$3 \leq x \leq 4.5$
$y = x + 4.5$	$1.5 \leq x \leq 3$
$y = 4.5 - x$	$-3 \leq x \leq -1.5$
$y = 7.5 - x$	$1.5 \leq x \leq 3$
$y = x + 7.5$	$-3 \leq x \leq -1.5$
$y = -(0.5x)^2 - 4$	$-6 \leq x \leq 6$

Draw large black circles at $(-1.5, 1.5)$ and $(1.5, 1.5)$

Draw a large oval connecting the coordinates $(0, 0)$, $(1, -1)$, $(0, -1.5)$ and $(-1, -1)$.



Christmas Graphs **Answers**



Christmas Graphs

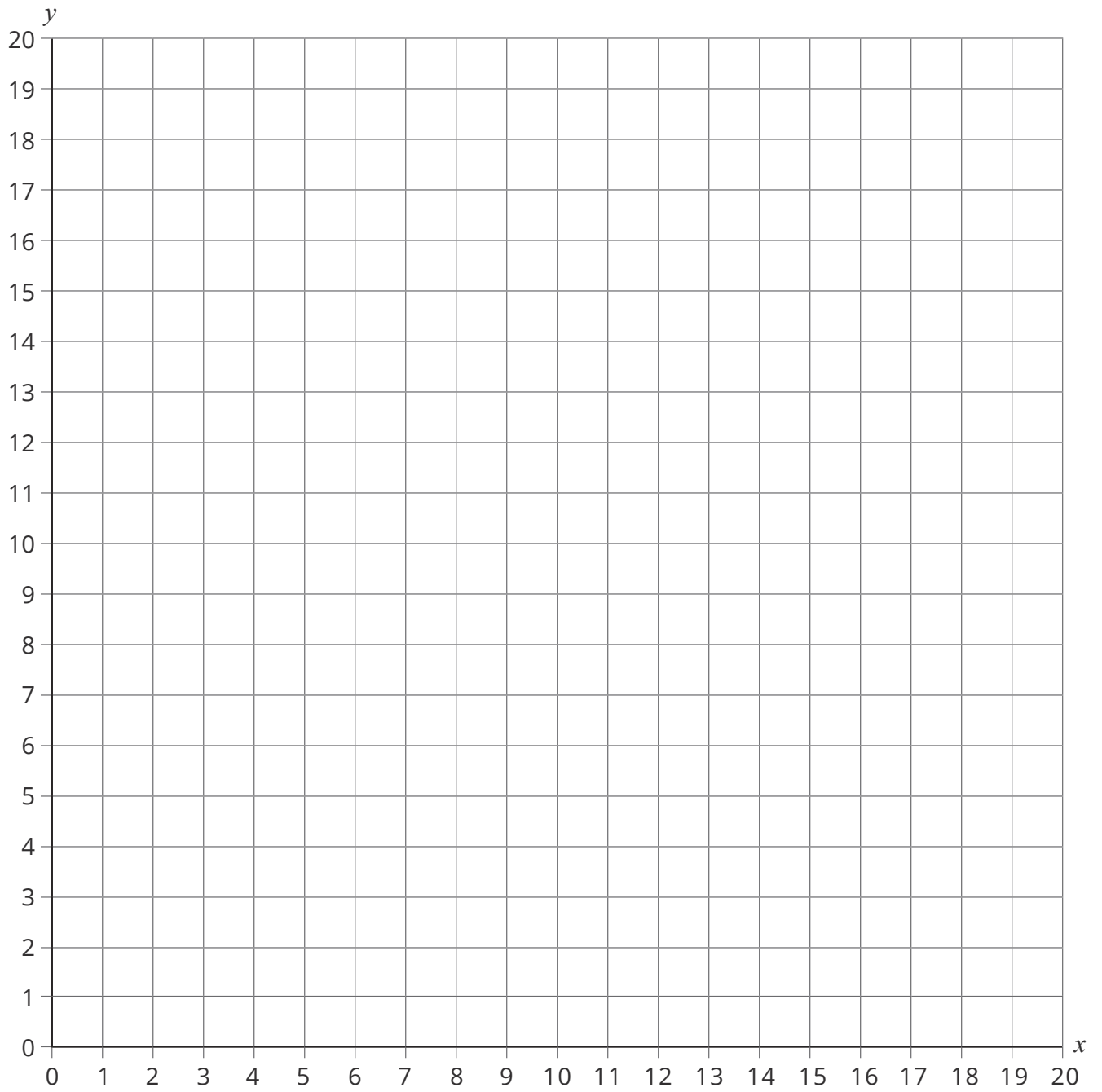
Instructions

Sketch or plot the graphs between the given values to reveal a Christmas picture!

$x = 1$	$8 \leq y \leq 11$
$x = 2$	$2 \leq y \leq 8$
$x = 6, x = 8$ and $x = 12$	$2 \leq y \leq 11$
$x = 13$	$13.5 \leq y \leq 15$
$x = 16$	$4 \leq y \leq 10$
$x = 17$	$10.5 \leq y \leq 13.5$
$y = 2$	$2 \leq x \leq 12$
$y = 8$ and $y = 11$	$1 \leq x \leq 12$
$y = 13.5$	$13 \leq x \leq 17$
$y = 16$	$6 \leq x \leq 8.5$ and $9.5 \leq x \leq 12$
$y = 12$	$6 \leq x \leq 7.5$ and $10 \leq x \leq 11$
$y = x + 5$	$6 \leq x \leq 7$
$y = \frac{1}{2}x - 4$	$12 \leq x \leq 16$
$y = \frac{1}{2}x + 2$	$12 \leq x \leq 17$
$y = \frac{1}{2}x + 5$	$12 \leq x \leq 17$
$y = \frac{1}{2}x + 10.5$	$1 \leq x \leq 5$
$y = 3x - 2$	$5 \leq x \leq 6$
$y = 50 - 4x$	$8.5 \leq x \leq 9$
$y = 4x - 22$	$9 \leq x \leq 9.5$
$y = 18 - x$	$5 \leq x \leq 6$
$y = 0.75x + 3.75$	$11 \leq x \leq 13$
$y = 28 - x$	$12 \leq x \leq 13$

Finally, plot the coordinates listed in order and join them together:

1. (7.5, 12), (8, 13), (9.5, 13), (10, 12), (9.5, 11.5), (8, 11.5), (7.5, 12)
2. (7.5, 12), (7, 11), (7.25, 9), (8, 10), (7.75, 11), (8, 11.5)
3. (9.5, 11.5), (9.75, 11), (9.5, 10), (10.5, 9.5), (11, 11), (10, 12)



Christmas Graphs Answers

