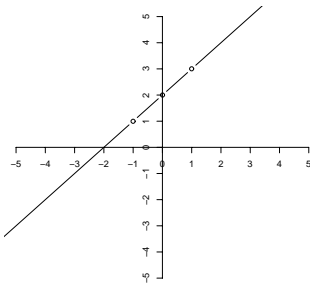# Solutions to Warmup 3

1. 640

2. 642.5

3. 643

4. 0.00146

5. 54500

6. 49

7. $2ab - 3bc$

8. 16

9. $\frac{1}{16}$

10. 2

11. Graph the function $2y + 3 = x + y + 5$
$y + 3 = x + 5$ $y = x + 5 - 3$
$y = x + 2$

12. Match these equations with their graphs:
The first graph: y=x+2
The second graph: y=2-x
Solve the following equations:

13.

$$\begin{aligned}
3(a - 2) &= 15 \\
3a - 6 &= 15 \\
3a &= 21 \\
a &= 7
\end{aligned}$$

14.

$$|7 - 3| = |4| = 4$$

15.

$$\begin{aligned}
|8x - 4| &= 12 \\
8x - 4 &= 12 \text{ or } 8x - 4 = -12 \\
8x &= 16 \text{ or } 8x = -8 \\
x &= 2 \text{ or } x = -1
\end{aligned}$$

Find the equation of the line through (3,0) and (6,3)

16. slope $= 1$:

$$\text{slope} = \frac{\Delta y}{\Delta x} = \frac{\text{``rise''}}{\text{``run''}} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - 0}{6 - 3} = \frac{3}{3} = 1$$

$x_1 = 3, y_1 = 0$

$y = mx + b$

$0 = 3 + b$

$b = -3$

$y = x - 3$

Check your answer using the other point (6,3):

$x_2 = 6, y_2 = 3$

$3 = 6 - 3$? Yes! Our equation is correct.