Algebra 1 Practice Exam 2

1 $3(a-1) = 3a-3$

Distributive Property

2 $b^0+3(5a-2b+c^2)-4a\div 2$ $\quad a=2,\ b=1,\ c=4$

$(1)^0+3(5(2)-2(1)+(4)^2)-4(2)\div 2$

69 ✓

3 $(8x^2-3x)-(6x^2-9x+4)$

$2x^2+6x-4$ ✓

4 $x(x+1)=132$

$x^2+x-132=0$

$(x-11)(x+12)=0$

$x-11=0$ $\qquad x+12=0$

$x=11$ ✓ $\qquad x=-12$ ✓

5 $(x^3+2x^2+8)\div(x-2)$

$$
\begin{array}{r|l}
x-2 & x^2+4x+8 \\
\hline
 & x^3+2x^2+0x+8 \\
 & -\,(x^3-2x^2) \\
\hline
 & 4x^2+0x \\
 & -\,(4x^2-8x) \\
\hline
 & 8x+8 \\
 & -\,(8x-16) \\
\hline
 & 24
\end{array}
$$

✓ ✓

$x^2+4x+8+\frac{24}{x-2}$

6 $3a^5b^3-18a^3b^3-21a^2b^4$

$3a^2b^3(a^3-6a-7b)$

$\therefore$ GCF $= 3a^2b^3$ ✓

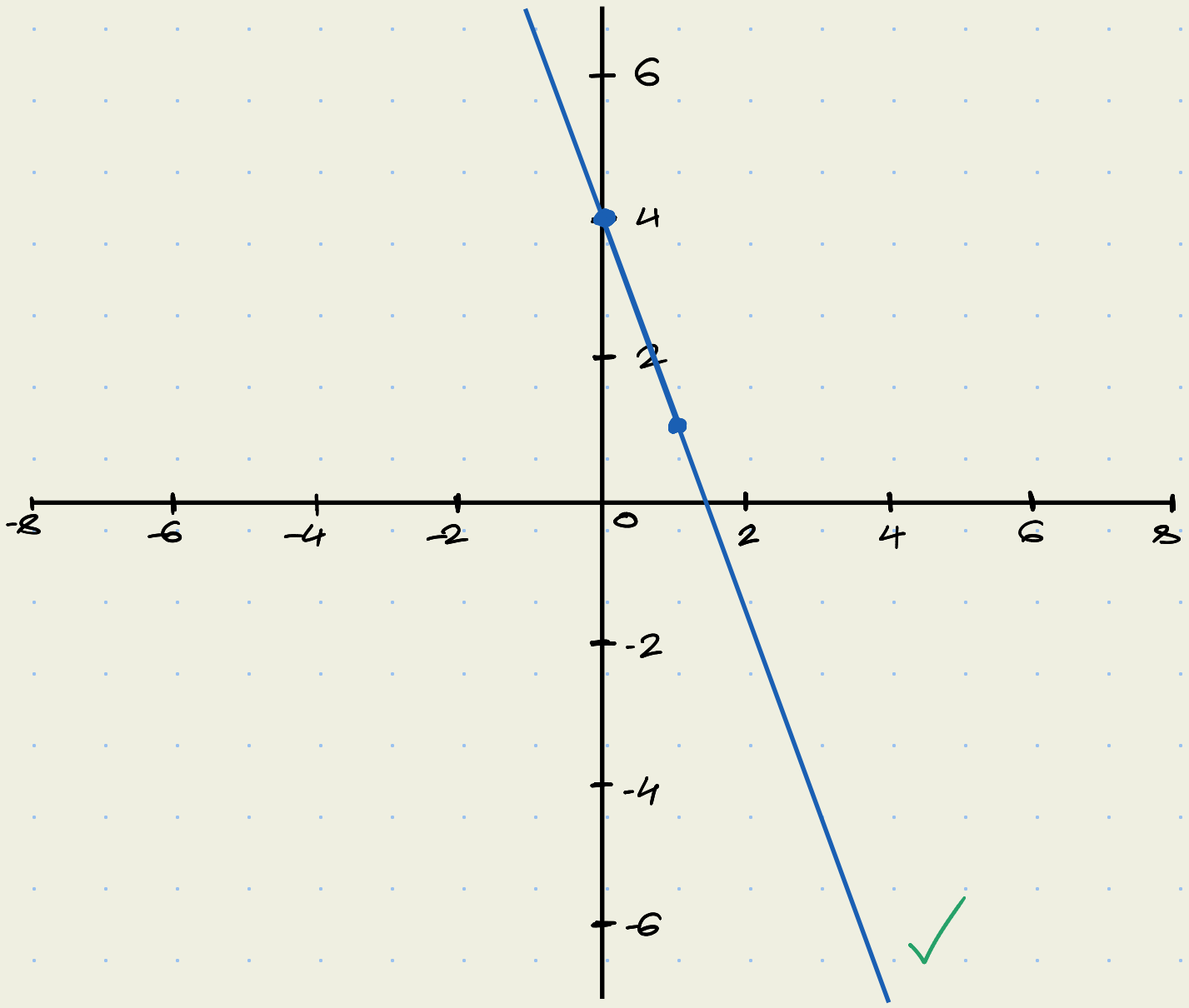
7 $6 - 2x \leq 14$

$2x \geq -8$

$x \geq -4$ ✓

8 $10(x+5)$

9 $y = -3x + 4$



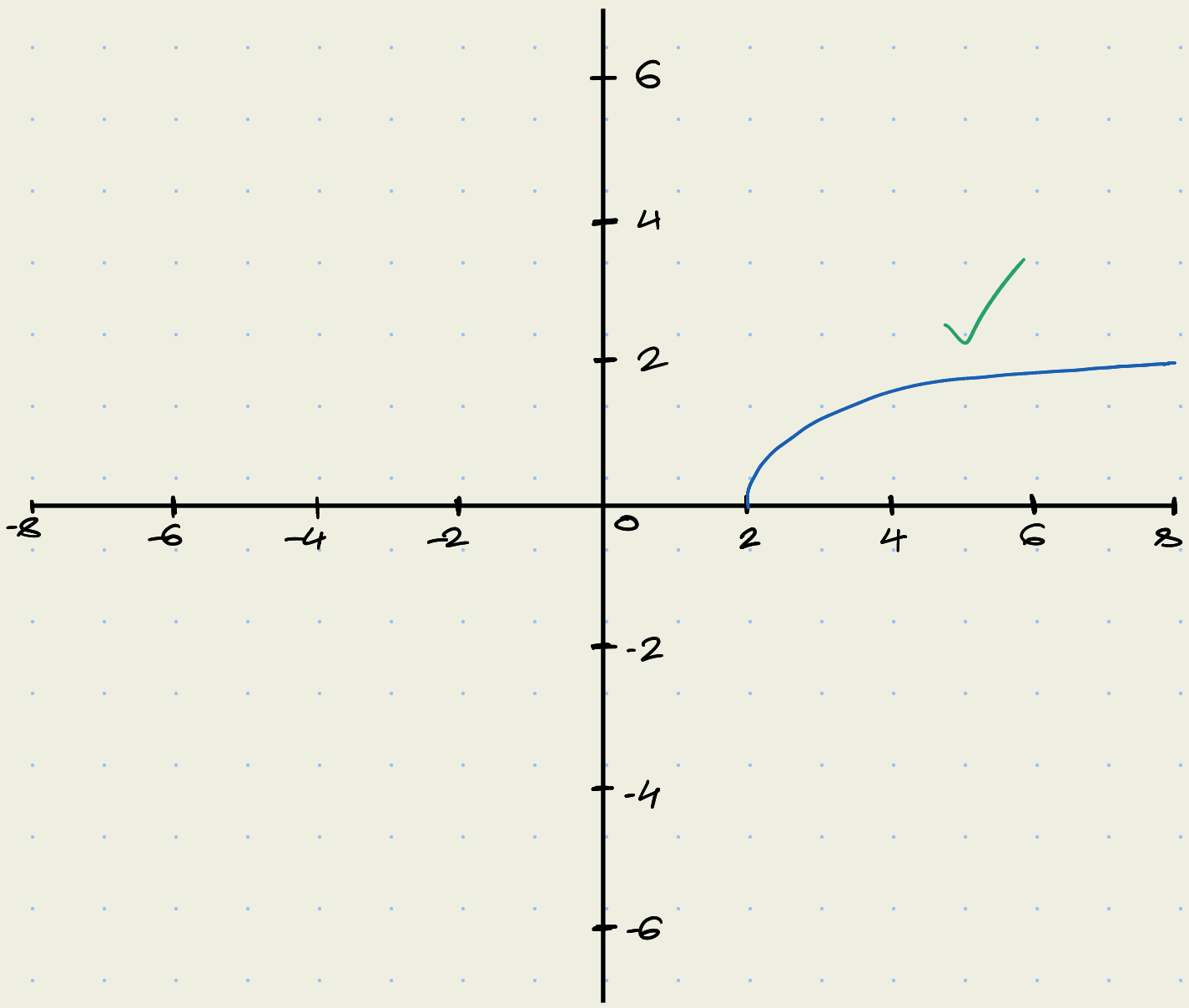
✓

10 $2x^2 + 5x - 6 = 0$

$$x = \frac{-(5) \pm \sqrt{(5)^2 - 4(2)(-6)}}{2(2)}$$

$$= \frac{-5 \pm \sqrt{73}}{4}$$

11 $f(x) = \sqrt{x-2}$



12 $f(x) = x^3 - 3x$

$f(-x) = (-x)^3 - 3(-x)$

$= -x^3 + 3x$

$f(x) \neq f(-x)$ Not even

$-f(x) = -(x^3 - 3x)$

$= -x^3 + 3x$

$f(-x) = -f(x)$ Odd ✓