Algebra 1 Practice Exam 1

1 $\frac{2x}{yz}\left(\frac{4x}{3y}-\frac{x^2}{z}\right)$

$\frac{8x^2}{3y^2z}-\frac{2x^3}{yz^2}$ ✓

2 $3\cdot(4\cdot2)=3\cdot(2\cdot4)$

Commutative Property

3 $\frac{6}{x}-3$ ✓

4 $-(4x-10)+14=2(4x-6)$

$-4x+24=8x-12$

$12x=36$

$x=3$ ✓

5 $f(x)=3\sqrt{x}$

$x\geq0 \quad \therefore [0,\infty)$ ✓

6 C ✓

7 $5-4x\leq13$

$4x\geq-8$

$x\geq-2$ ✓

8 $(fg)(-3)$ if $f(x)=x-3$ $g(x)=2x+5$

$fg(x)=(x-3)(2x+5)$

$=2x^2-x-15$

$fg(-3)=2(-3)^2-(-3)-15$

$=6$ ✓

9 $\frac{3}{x+5} + \frac{6}{x^2+2x-15}$

$\frac{3}{x+5} + \frac{6}{(x+5)(x-3)}$

$\frac{3(x-3)}{(x+5)(x-3)} + \frac{6}{(x+5)(x-3)}$

$\frac{3(x-3)+6}{(x+5)(x-3)}$

$\frac{3x-3}{(x+5)(x-3)}$ ✓

10 $4x+6y=15$

$x=6-6y$

$4(6-6y)+6y=15$

$24-24y+6y=15$

$-18y=-9$

$y=\frac{1}{2}$ ✓

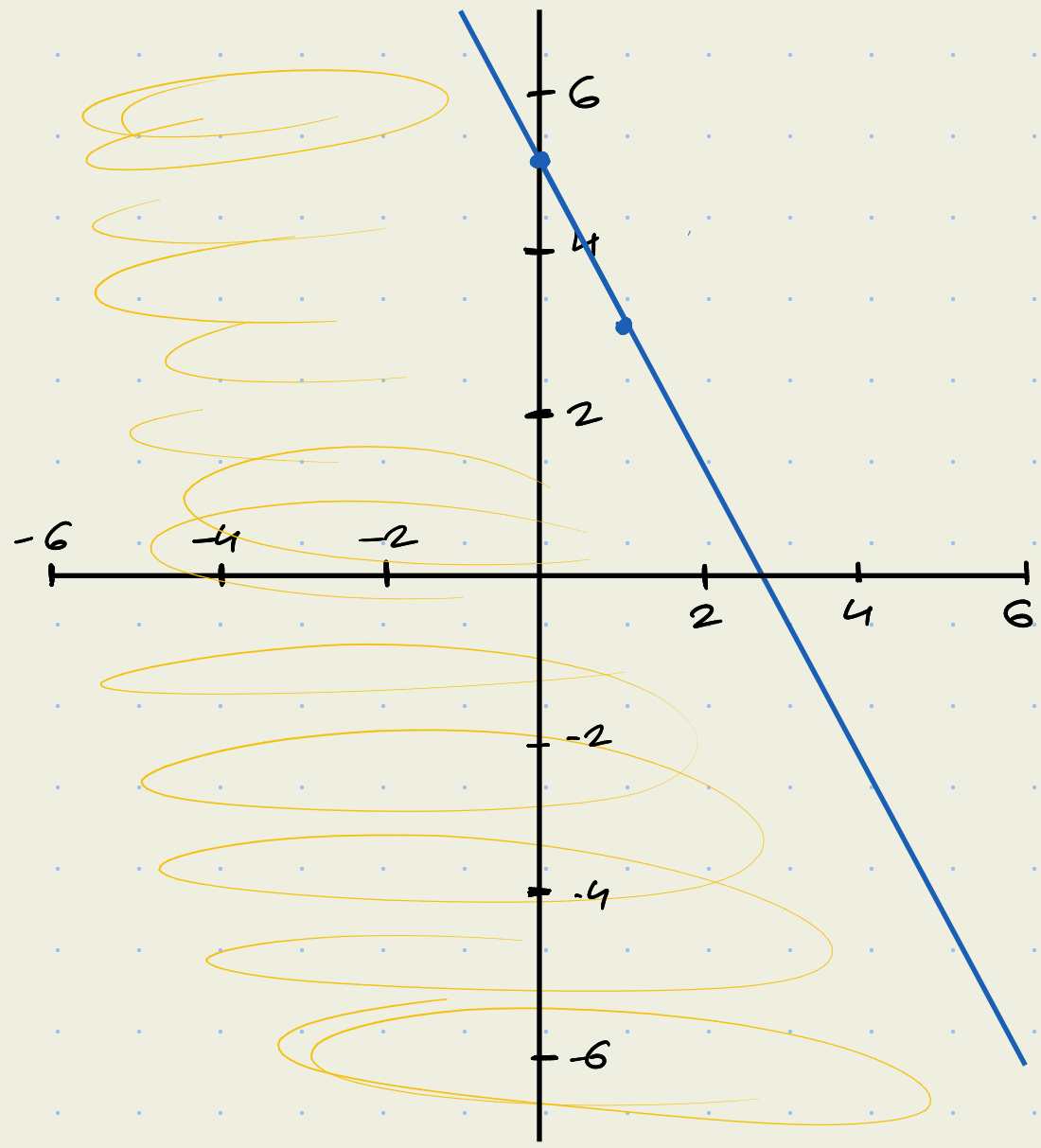
11 $x^2+14x-32=0$

$(x-2)(x+16)=0$

$x-2=0$ $\qquad$ $x+16=0$

$x=2$ ✓ $\qquad$ $x=-16$ ✓

12 $-x-y>x-5 \rightarrow y<-2x+5$



✓

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