Algebra 1
Final Exam

krista king
MATH

Algebra 1 Final Exam

This exam is comprehensive over the entire course and includes 12 questions. You have 60 minutes to complete the exam.

The exam is worth 100 points. The 8 multiple choice questions are worth 5 points each (40 points total) and the 4 free response questions are worth 15 points each (60 points total).

Mark your multiple choice answers on this cover page. For the free response questions, show your work and make sure to circle your final answer.

1. (5 pts)	A	B	C	D	E
2. (5 pts)	A	B	C	D	E
3. (5 pts)	A	B	C	D	E
4. (5 pts)	A	B	C	D	E
5. (5 pts)	A	B	C	D	E
6. (5 pts)	A	B	C	D	E
7. (5 pts)	A	B	C	D	E
8. (5 pts)	A	B	C	D	E

1. **(5 pts)** Which property is illustrated by $3 + (4 + 1) = (3 + 4) + 1$?

A Commutative property

B Associative property

C Identity property

D Transitive property

E Distributive property

2. **(5 pts)** Evaluate $x^0 + 3(5y - 2x + z^3) - 4y \div 2$ when $x = 5$, $y = 1$, and $z = 2$.

A 12

B 10

C 4

D 22

E 8

3. **(5 pts)** Solve $4(2a-3) = -(4a-15) + 9$.

A 3

B $\frac{3}{4}$

C -1

D 2

E $-\frac{1}{4}$

4. **(5 pts)** Translate "two less than the product of 3 and a number" to a math expression.

A $2 - 3 + x$

B $3x - 2$

C $2 - 3x$

D $3 + x - 2$

E $\frac{3}{x} - 2$

5. **(5 pts)** What is the domain of the function $f(x) = 3/x$?

A $(-\infty,3) \cup (3,\infty)$

B $(0,\infty)$

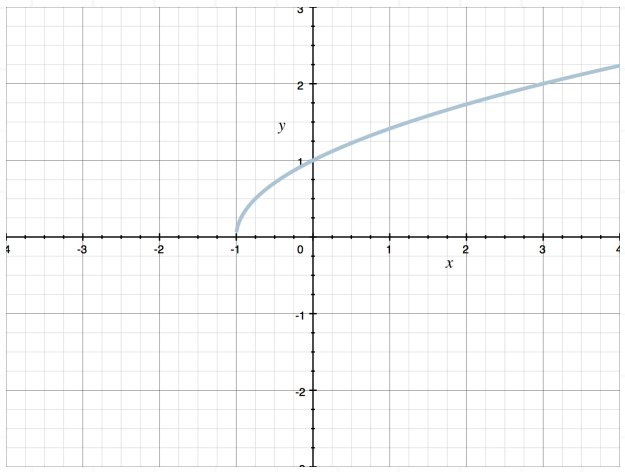
C $(-\infty,0) \cup (0,\infty)$

D $(-\infty,-3) \cup (-3,\infty)$

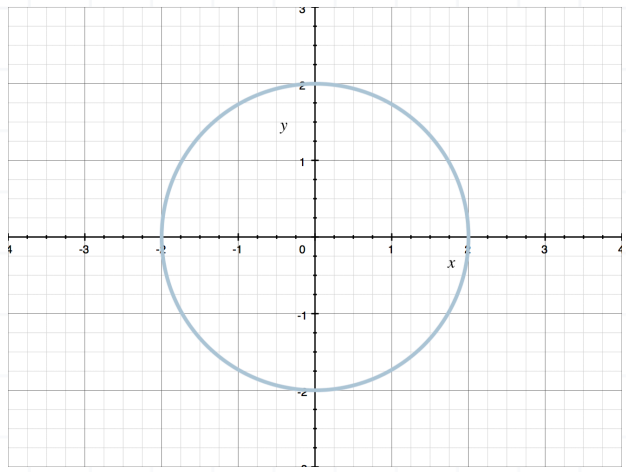
E $(-\infty,0)$

6. **(5 pts)** Which graph does not represent a function?

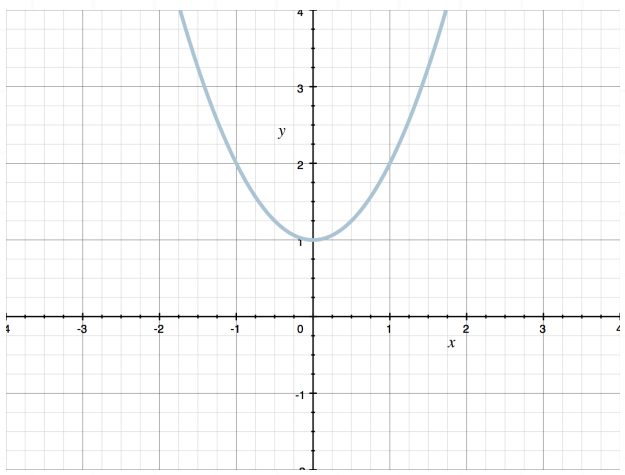
A



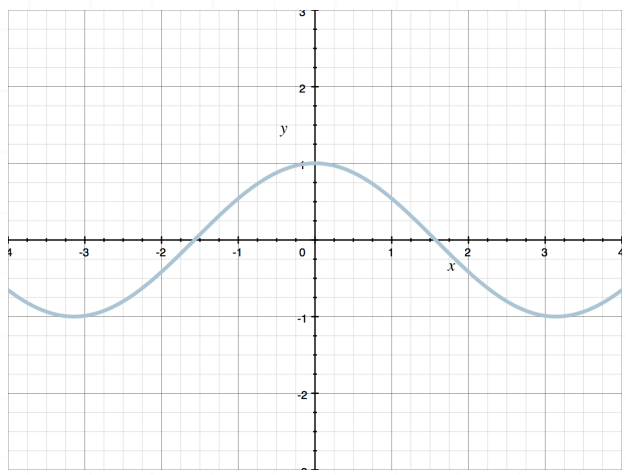
D



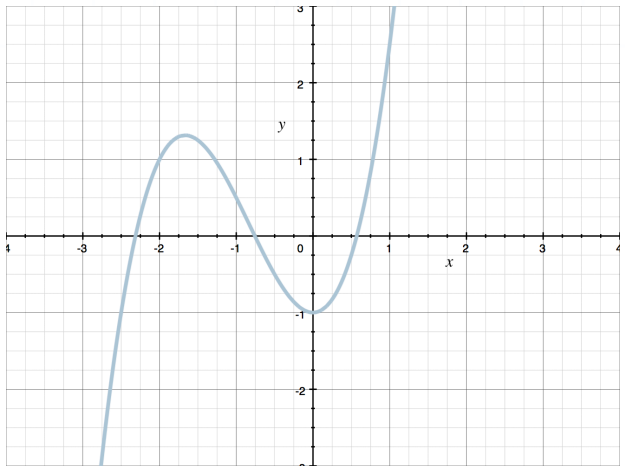
B



E



C



7. **(5 pts)** Solve $5 - 2x \geq 11$.

A	$x \geq 8$	C	$x \leq -8$	E	$x \geq -3$
B	$x \leq 3$	D	$x \leq -3$		

8. **(5 pts)** Expand $(x - 2)(x + 4)$.

A	$x^2 + 2x + 2$	C	$x^2 - 2x + 4$	E	$x^2 - 2x + 2$
B	$x^2 + 2x - 8$	D	$x^2 - 2x + 8$		

9. **(15 pts)** Graph $y = 3x - 4$.

10. **(15 pts)** Solve the system of equations.

$$2x - 3y = 6$$

$$x = 12 - 3y$$

11. **(15 pts)** Find the solutions of $x^2 - 10x + 24 = 0$ by factoring.

12. **(15 pts)** Solve $2x^2 + 3x - 5 = 0$ using the quadratic formula.