CCP **Spring 2011**
Math 017 **Dr. Yun Yoo**

Solutions for Short Version of Sample Final

1A	-12	-2	
2A	5	0	
3A	$\frac{2}{15}$	$\frac{43}{30}$	
4A	-6	-1	
5A	$\frac{3}{2}$	$-\frac{21}{10}$	
6A	234000	0	
7A	-2	-30	
8A	-1	$-\frac{4}{9}$	
9A	$-\frac{31}{6}$	1	

1E	$a+(-b)$	$(-x)^m$	
2E	$4x-2=7$	$3x-7y=5,$	$x=0$
3E	$x=1$	$w=\frac{5}{6}$	
4E	$x\geq 5$	$x\geq 0$	
5E		$x\geq -1$	
6E	No,	$3x=0$	

7E	$-4, -2.1, -2$	$x \le 9$	
8E	-3	not possible	
9E	$x = ab$	$x = b - a$	
10E	a^{18}	not possible	
11E	$-4x - 12y + 4z$	$6x - 20$	
12E	x	0	
13E	$x(3 - 2y)$	$4(y^2 + 2x)$	
1B	$\frac{5}{6} - Y$	not possible	
2B	$2x^7$	1	
3B	$6x^2 - x$	$-2x - 6y + 8z$	
4B	$2a^2 + 3a - 2ab - 3b$	$-2bc + 2bc^5 - c^2 + c^6$	
5B	$x^2(3x^3 - 2x + 1)$	$xy^2(3x + 5y^2 - 3xy)$	
6B	$1 + 2b$	-1	
7B	No	-16	
8B	All three of them	No, Yes	
9B	$5^3 A^3$	$\frac{-z - z - z}{z^4}$	1
10B	$\frac{-1}{b^2}$	not possible	

11B	$-x$	$1-2xy$
12B	$x=\frac{5}{7}$	No solution
13B	All real numbers	$x \geq -4$
14B	$(6x-1)(6x+1)$	$(m^2-0.1n)(m^2+0.1n)$
15B	$3x$	$-2m^2+2m$
16B	$4x^5-10$	a^2+a-12
17B	Not possible	$\frac{1}{6}ab$
18B	$x=\frac{6}{7}$	No solution
19B	$x=\frac{c}{a-b}$	$x=\frac{a}{b}$
20B	$7+\frac{1}{3}x$	$(x-9)A$
21B	$a=\frac{1}{4}, b=-1$	$a=8, b=4$
22B	$4^2=16$	$-(\frac{X}{3}-y)$
23B	$4-4x+x^2$	$9a^2b^2+6ab+1$
24B	6	3

1D	$(b),(d)$	2

2D $m-(n)$, $-n+m$ $\dfrac{-a-a^2}{4s}$

3D $\dfrac{a^{20}}{3^{20}}$, $\dfrac{a^{12}a^8}{3^{20}}$, $\dfrac{(a^4)^5}{3^{20}}$ -1

4D $3b^3-b^4+cb^2-cb^3-2b^2$ $6x^5-8x^4+2x^3-2x^2+2x$

5D $(a+2b)(4x-1)$ $\dfrac{2}{3}(x^2y-2z)$ $0.01(20x^2+3z)$

6D $4x$ $\dfrac{a}{5}$

7D $x=-\dfrac{5}{12}$ $x>-\dfrac{14}{3}$

8D $b=a^2c$ $A=-1$

9D -3 3

1VD $[(-x)(x^2)]^6=(-x^3)^6=x^{18}$,
$(3x-2)(-4x+2)=-12x^2+14x-4$

2VD $9+27x^3$ $2m^3$

3VD $(4m-1)(1-2m)$ $(yx-4)(y^2x^2+4yx+16)$

4VD $x=1$ $x=\dfrac{6}{5}$

Grading rubric for Math 017 Final Exam

I. No partial credit will be given in any case.

II. Any numerical value (unless specified otherwise) must follow the below formatting to be accepted as a correct answer:

- Unless specified otherwise, the answer can be given in any form (fraction, decimal) as long as it is exactly equal to the answer (for example, $\frac{1}{3} \neq 0.33$).
- Fractions must be reduced to lowest terms.
- If a fraction represents an integer, the integer should be given as the final answer ($\frac{2}{1}$ will not be accepted).
- Numbers with a plus sign in front of any number different from zero are acceptable (+2 is a correct answer) but zero should be written as 0 (not as +0, or -0).
- A negative fraction can have a minus sign placed in front, in the numerator, or in the denominator: all are accepted ($-\frac{1}{2}$, $\frac{-1}{2}$, $\frac{1}{-2}$).
- In the final answer, numbers should be given as either positive or a negative answer ($\frac{-5}{-6}$ will not be accepted).
- A decimal can be written with or without zero in front of the decimal point, (for example, both 0.5 and .5 will be accepted).
- Not more than 1 zero should appear before the decimal point (000.5 will not be accepted).
- The answer should not include redundant zeros at the end of a decimal (for example 0.900 will not be accepted).
- An integer should not be written in the form of a decimal (5.0 =5; only the answer 5 will be accepted).
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III. Any answer in the form of an algebraic expression must satisfy the following conditions to be accepted as a correct answer:

- Any number appearing in the algebraic expression must follow the format described in II above, and all conventions for writing algebraic expressions.
- If there is any numerical operation that can be performed it should be performed.
- All exponents must be placed correctly (not in the same line as the base: $x2 \neq x^2$).
- A fraction bar of any rational expression must be long enough to fit the entire denominator and the numerator. For example, $x+\frac{2yz}{m}$ will not be accepted if either $\frac{x+2yz}{m}$ or $x+\frac{2yx}{m}$ is the correct answer.

- Expressions that are not in the denominator should be clearly written as such. For example, if the answer is $\frac{4}{5}m$ (equivalently $\frac{4m}{5}$), the following will not be accepted:

$$\frac{4}{5}\text{m}$$

- A minus sign in front of a rational expression should be lined up with the fraction bar (not written in such way that it might be interpreted as a part of the numerator). For example, the following will not be accepted:

$$-\frac{3x+2y}{4xy}$$

- If a final answer is *x*, only *x* will be accepted. Answers like $1x$, x^1, or $\frac{x}{1}$ are not acceptable. Similarly, for $-x$, only accept $-x$ is acceptable ($-1x$ will not be accepted). If *x* or $-x$ is the part of the answer, the same rules apply ($3y-1x$, $\frac{z+y}{1}$ are not written in an acceptable format).
- All parentheses must be closed for the answer to be accepted (for example, $2-(x+y$, unfortunately will not be accepted).
- Numerical coefficients do not necessarily have to be in front of a variable/algebraic expression. $x\cdot 3$, $(y+z)(-3)$ are acceptable.