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Classwork June 6
Practice Test Part 1

1.) $(x-4)^2 = 3x-12$

$x^2 - 8x + 16 = 3x - 12$

$-3x+12 \quad -3x+12$

$x^2 - 11x + 28 = 0$

$(x-4)(x-7) = 0$

$x = 4 \quad | \quad x = 7$

choice 3

2.) $\frac{(2a^2c)^2}{ac^3} = \frac{4a^4c^2}{ac^3}$

$= 4a^3c^{-1}$

choice 2

3.) $32x + 28y$ not eq.

Choice 3

4.) $y = -x + 6x - 5$

$x = \frac{-b}{2a} = \frac{-6}{2(-1)}$

$x = 3$

choice 1 (3, 4)

5.) Choice 1 slope is constant

6.) $y = \frac{1}{2}x + 4 \rightarrow -8$

choice 1

7.) $x = -2 \quad x = -7$

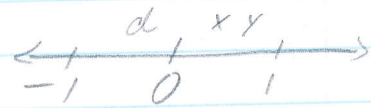
$(x+2)(x+7) = 0$

$x^2 + 9x + 14 = 0$

Choice 3

8.) $0 < x < y < 1$

$d = x - y$



choice 4

9.) $h(-2) = 2x^2 + 3x + 1$

$= 2(-2)^2 + 3(-2) + 1$

$= 8 - 6 + 1$

$= 3$

Choice 3

10.) $(3x-1)(3x+7)$

$9x^2 + 21x - 3x - 7$

$9x^2 + 18x - 7$

$x(2x+5) = 2x^2 + 5x$

$9x^2 + 18x - 7$

$-2x^2 - 5x$

$7x^2 + 13x - 7$

Choice 4

11.) $y = 2x^2 - 10x \quad y = -3$

$-3 = 2x^2 - 10x$

$0 = 2x^2 - 10x + 3$ Choice 3

$0 = 2 \cdot$

	x	$-\frac{5}{2}$
x	x^2	$-\frac{5}{2}x$
$-\frac{5}{2}$	$-\frac{5}{2}x$	$+\frac{25}{4}$

$3 \quad 2 \quad -\frac{25}{4}$

$0 = 2(x - \frac{5}{2})^2 - 9.5$

$\frac{+9.5}{2} = \frac{2(x-\frac{5}{2})^2}{2}$

$\pm\sqrt{4.75} = \sqrt{(x - \frac{5}{2})^2}$

$= \frac{5}{2} \pm \sqrt{4.75}$

$x = 4.7 \,\&\, 0.3$

13) $f(1) = 4$; $f(n) = f(n-1) + 3n$

$f(2) =$ $\quad f(2) = f(1) + 3n$

$f(3) =$ $\quad = 4 + 3(2)$

$f(4) =$ $\quad = 10$

$f(5) = ?$ $\quad f(3) = 10 + 3(3)$

$= 19$

$f(4) = 19 + 3(4)$

$= 31$

$f(5) = 31 + 3(5)$

$= 46$

choice 4

12) $2x + y = 1$ $\quad$ find $x - y$

$y = x + 7$

$2x + x + 7 = 1$

$3x + 7 = 1$

$-7 \quad -7$

$\frac{3x}{3} = \frac{-6}{3}$

$x = -2$

$y = -2 + 7 = 5$

$-2 - 5$

-7

choice 1

14) $x^4 - 9$ DOTS

choice 2 $(x^2 - 3)(x^2 + 3)$

15.) $\frac{36}{90} = 40\%$ choice 2

16.) $y = \sqrt[3]{x}$ choice 2

*17.) $f(x) = x^2 - x - 6$

$f(1) = -6$

$f(5) = 14$

choice 3

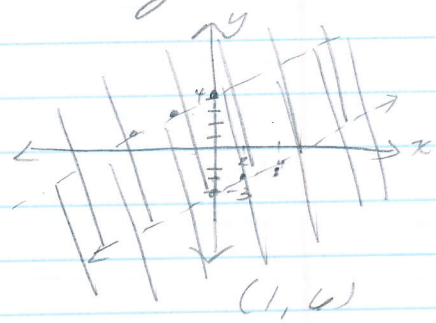
18.) $\frac{(3)x}{(3)2} - \frac{x}{6}$

$\frac{2x}{6} = \frac{x}{3}$

choice 3

19.) $y < 2x + 4$

$y > \frac{1}{2}x - 3$



$(1, 6)$

choice 4

graph on calc.

20.) $\frac{V}{\frac{1}{3}\pi} = \frac{\frac{1}{3}\pi r^2 h}{\frac{1}{3}\pi}$

$\frac{3V}{\pi r^2} = \frac{r^2 h}{r^2}$

$\frac{3V}{\pi r^2} = h$ choice 2

21.) $g(-2) = x^2$

$= (-2)^2$

$g(-2) = 4$

$m = 5$

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22.) $s(t) = -16t^2 + 48t + 64$

t	$s(t)$
0	64
1	96
2	96
3	64
4	0

4 sec
choice 4
or

vertex $(1.5, 100)$
find the roots
@

$0 = -16t^2 + 48t + 64$

$0 = -16(x - 1.5)^2 + 100$

$-100 \qquad -100$

$\frac{-100}{-16} = \frac{-16(x-1.5)^2}{-16}$

$\sqrt{6.25} = \sqrt{(x-1.5)^2}$

$\pm\sqrt{6.25} = x - 1.5$

$+1.5 \qquad +1.5$

$1.5 \pm \sqrt{6.25} = x$

$x = 4$ & $x = -1$ reject

23.) vertex $(0, -3)$

domain range

$y \geq -3$

choice 1

24.) choice 1