Simplify

1. $\frac{193+7}{3^2-4} =$

$\frac{193+7}{(3)(3)-4} =$

$\frac{193+7}{9-4} =$

$\frac{200}{5} =$

$40 =$

Solve

2. $F+1 = -2$

$F+1-1 = -2-1$

$F = -3$

Simplify

3. $2(4x+2)+3(x+4) =$

$8x+4+3x+12 =$

$11x+16 =$

4. $5x+4 = 49$

$5x+4-4 = 49-4$

$5x = 45$

$\frac{5x}{5} = \frac{45}{5}$

$x = 9$

5. Solve

$2(5x-2) = 8x$

$10x - 4 = 8x$

$10x - 4 + 4 = 8x + 4$

$10x = 8x + 4$

$10x - 8x = 8x + 4 - 8x$

$2x = 4$

$\frac{2x}{2} = \frac{4}{2}$

$x = 2$

2.

6. Solve

$5x - 6 = 2x - 30$

$5x - 6 + 6 = 2x - 30 + 6$

$5x = 2x - 24$

$5x - 2x = 2x - 24 - 2x$

$3x = -24$

$\frac{3x}{3} = \frac{-24}{3}$

$x = -8$

7. Solve

$\frac{x}{5} = \frac{x}{6} + \frac{2}{5}$

mult by LCD = 30

$\frac{x}{5}(30) = \frac{x}{6}(30) + \frac{2}{5}(30)$

$x(6) = x(5) + 2(6)$

$6x = 5x + 12$

$6x - 5x = 5x + 12 - 5x$

$1x = 12$

$x = 12$

8. Solve

$1.1x + 4.3 = 0.7x + 1.14$

$1.1x + 4.3 - 4.3 = 0.7x + 1.14 - 4.3$

$1.1x = 0.7x - 3.16$

$1.1x - 0.7x = 0.7x - 3.16 - 0.7x$

$.4x = -3.16$

$\frac{.4x}{.4} = \frac{-3.16}{.4}$

$x = -7.9$

3.

9. Find Median

4, 6, 25, 23, 43, 47

4, 6, 23, 25 43, 47 rewrite

$\frac{23+25}{2} =$

$\frac{48}{2} =$

24 = Median

10. Solve

19 is 4% of what number?

$\frac{4}{100} = \frac{19}{x}$

$4(x) = 100(19)$ cross mult

$4x = 1900$

$\frac{4x}{4} = \frac{1900}{4}$

$x = 475$

$4\overline{)1900}$ → 475

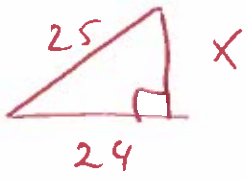
$-(16)$

30

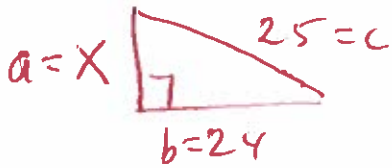
$-(28)$

20

11. Solve



4.



$a^2+b^2=c^2$

$(X)^2+(24)^2=(25)^2$

$X^2+(24)(24)=(25)(25)$

$X^2+576=625$

$X^2+576-576=625-576$

$X^2=49$

$\sqrt{X^2}=\sqrt{49}$

$X=7$

12. A bag contains 7 red marbles, 2 blue marbles, and 1 green marble. What is the probability of choosing a marble that is not blue when one marble is drawn from the bag?

$\frac{want}{all}=$

$\frac{not\ blue}{all}=$

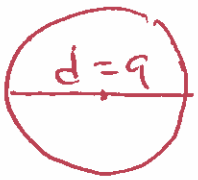
$\frac{7+1}{7+2+1}=$

$\frac{8}{10}=$

$\frac{2(4)}{2(5)}=$

$\frac{4}{5}=$

13 Find area



use $\pi = 3.14$

$r = \frac{d}{2} = \frac{9}{2} = 4.5$

$A = \pi r^2$

$A = 3.14(4.5)^2$

$A = 3.14(4.5)(4.5)$

$A = 3.14(20.25)$

$A = 63.585$

14 Solve

$8x - (4x - 1) = 2$

$8x - 1(4x - 1) = 2$

$8x - 4x + 1 = 2$

$4x + 1 = 2$

$4x + 1 - 1 = 2 - 1$

$4x = 1$

$\frac{4x}{4} = \frac{1}{4}$

$x = 1/4$

15 Solve

$\frac{5x}{6} + \frac{4}{3} = \frac{2x}{3}$

$\frac{5x}{6}(6) + \frac{4}{3}(6) = \frac{2x}{3}(6)$

$5x(1) + 4(2) = 2x(2)$

$5x + 8 = 4x$

$5x + 8 - 8 = 4x - 8$

$5x = 4x - 8$

$5x - 4x = 4x - 8 - 4x$

$1x = -8$

$x = -8$

16. Solve

$9x+5-9x-5=6x-6x-3$

$0 \neq -3$

no solution

17. Solve

$2(x+5)=(2x+10)$

$2x+10=2x+10$

$2x+10-10=2x+10-10$

$2x=2x$

$2x-2x=2x-2x$

$0=0$

all real numbers

18. Solve for T

$A=P+PRT$

$A-P=P+PRT-P$

$A-P=PRT$

$\frac{A-P}{PR}=\frac{PRT}{PR}$

$\frac{A-P}{PR}=T$

19. Solve

$21x+9>3(6x+4)$

$21x+9>18x+12$

$21x+9-9>18x+12-9$

$21x>18x+3$

$21x-18x>18x+3-18x$

$3x>3$

$\frac{3x}{3}>\frac{3}{3}$

$x>1$

$(1, +\infty)$

(20.) Determine whether the ordered pair is a solution of the given linear equation.

$-2y + 3x = -15 \qquad (5, 0)$

$x \quad y$

$-2(0) + 3(5) = -15$

$0 + 15 = -15$

$15 \neq -15$ NO

(21.) graph $y = 2x + 4$

x	y
0	4
1	6
-1	2

$y = 2(0) + 4$

$y = 0 + 4$

$y = 4$

$y = 2(1) + 4$

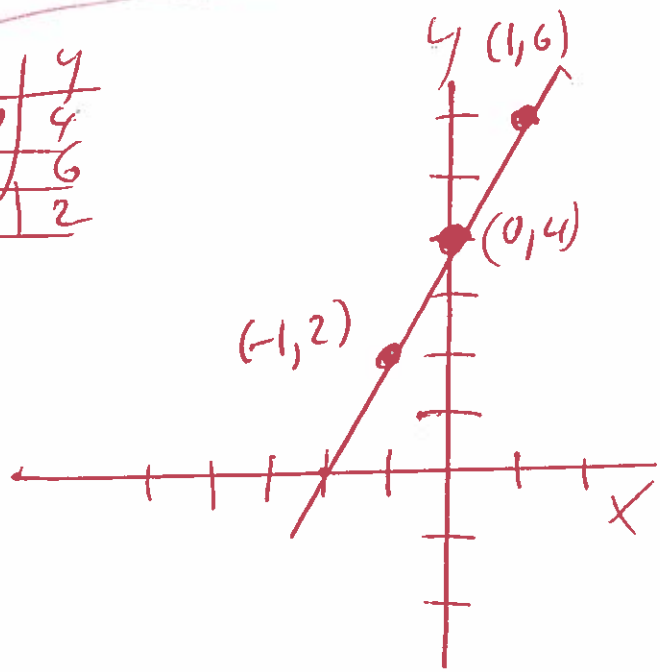
$y = 2 + 4$

$y = 6$

$y = 2(-1) + 4$

$y = -2 + 4$

$y = 2$



(22.) graph $5y - 25x = 10$

$5y - 25x + 25x = 10 + 25x$

$5y = 10 + 25x$

$\frac{5y}{5} = \frac{10}{5} + \frac{25x}{5}$

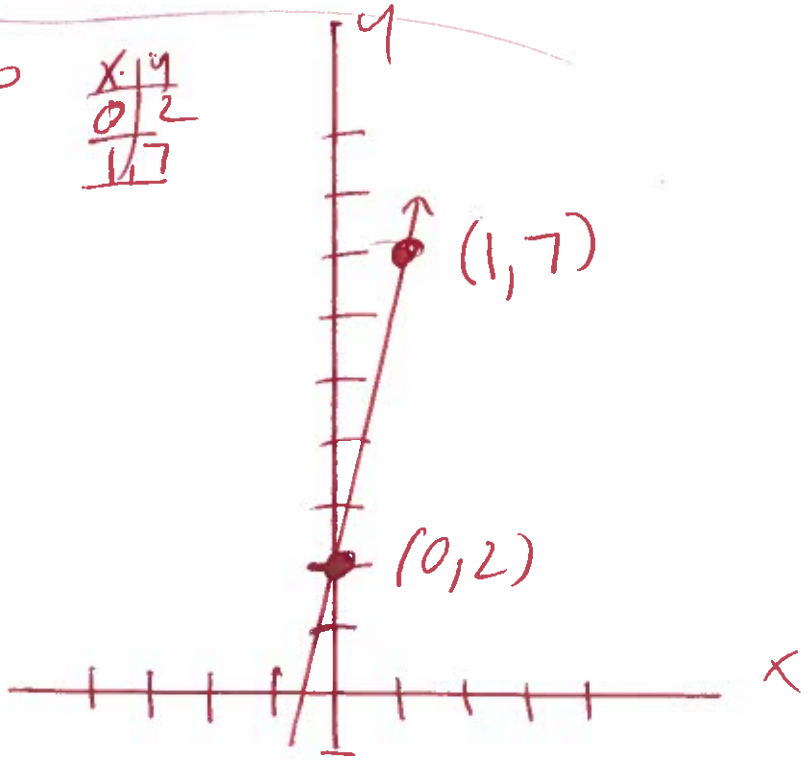
$y = 2 + 5x$

$y = 5x + 2$

x	y
0	2
1	7

$y = 5(0) + 2 = 0 + 2 = 2$

$y = 5(1) + 2 = 5 + 2 = 7$



23. Find the slope of the line through the two points $(8,5)(6,9)$

$x_1\ y_1\quad x_2\ y_2$

$$m = \frac{y_1 - y_2}{x_1 - x_2}$$

$$m = \frac{(5)-(9)}{(8)-(6)}$$

$$m = \frac{5-9}{8-6}$$

$$m = \frac{-4}{2}$$

$$m = -2$$

24. Find the equation of the line with point slope $(5,2)$ $m = 2 =$ slope

$x_1\ y_1$

$$y - y_1 = m(x - x_1)$$

$$y-(2) = 2(x-(5))$$

$$y-2 = 2(x-5)$$

$$y-2 = 2x-10$$

$$y-x+2 = 2x-10+2$$

$$y = 2x-8$$

25. Find $f(4)$ when $f(x) = x^2+4x-3$

$$f(4) = (4)^2+4(4)-3$$

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

$$f(4) = 16+16-3$$

$$f(4) = 32-3$$

$$f(4) = 29$$