Math 8
Directions: Answer each question in your notebook, showing work neat, sequenced, precise, with appropriate procedures and solutions consistent and true
Addition

1. $7+8=$
2. $17+8=$
3. $47+8=$
4. $77+8=$
5. $16-9=$
6. $26-19=$
7. $56-49=$
8. $86-79=$

Factors
State all the natural number factors of each whole number, not including one.
9. 24
10. 40
11. 56
12. 96
13. 144

Prime Factors
State the prime factors of each number. Write each factor as a power.
14. 24
15. 40
16. 56
17. 96
18. 144

Integer Operations.
19. $48-71=$
20. $34-(-68)=$
21. $-38-75=$
22. $29-(-47)=$

Divide. Round to the nearest 100th, if necessary.
23. $1395112 \div 8=$
24. $47874 \div 6=$
25. $58 \div 80=$
26. $12 \div 14$ (CP3's shooting last Monday)

Reduce Fractions.
27. $\frac{24}{40}$
28. $\frac{40}{56}$
29. $\frac{84}{144}$

## Fraction Operations

30. $\frac{3}{5}+\frac{3}{8}=$
31. $\frac{3}{5}-\frac{3}{8}=$
32. $10 \frac{5}{8}-6 \frac{3}{4}=$
33. $\frac{3}{8} \div \frac{12}{20}=$

Slope of a Line.
34. State and describe the slope of a line.
35. Graph in a coordinate plane a line with a slope of $m=-1 \frac{3}{4}$ and passes through the point (0,4).

Constant Rate of Change, Proportionality
36. Complete the following table:

| $\ln (\mathrm{x})$ | $\mathbf{- 2}$ | $\mathbf{- 1}$ | $\mathbf{0}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| out | 11 |  |  | -1 |  |  |  |  |  |
| $(y)$ |  |  |  |  |  |  |  |  |  |

a. State the algebraic rule of the table (hint: $y=m x+b$ )
b. Is it linear and proportional? Justify with evidence.

Direct Variation
37. The Circumference of a circle varies directly with the diameter. If a circle with a circumference of 88 cm has a diameter of 28 cm , fine the circumference of a circle with a diameter of 56 cm .

Write in $y=m x+b$ (slope-intercept) form.
38. $4 x-5 y=-10$, state the slope and $y$-intercept.
39. Write a linear equation with a slope of $-1 \frac{3}{4}$ and a y-intercept of 4 .

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Point Slope Form
40. Write a point-slope form linear equation that goes through the points $(-2,2)$ and $(2,-5)$
41. Write the point-slope equation from \#40 into slope-intercept form.

Standard Form.
42. For the original equation in $\# 38$, state the constants ' $A$ ', ' $B$ ', and ' $C$.'

Systems of Equations.
Solve the system of equations; choose your method!
$10 x+3 y=19$
44.
$y=2 x+5$
45. $y=-\frac{1}{2} x+5$
$y=3 x-2$

Parallel Lines \& Transversals
Glencoe pg. 377, \#'s 13 through 28, on separate sheets of paper, i.e., NOT in textbook. Constant Rate of Change, Proportionality

