

Final Exam (Part I) - Pre Test

Evaluate each expression.

1) $2 + \frac{5}{7}$

2) $4\frac{1}{6} - 2\frac{5}{6}$

3) $\frac{1}{6} + 1\frac{1}{3}$

4) $\frac{4}{7} - \frac{1}{4}$

Write each as an algebraic expression.

5) 4 less than n is equal to 21

6) a number increased by 10

Simplify each expression.

7) $n + 7 + 5 + 6n$

8) $4n + 7 + 5$

9) $5(5x + 2)$

10) $3(2v - 3)$

11) $7(x - 1) + 8x$

12) $4 + 2(8k - 9)$

Evaluate each using the values given.

13) $x \div 2 + y$; use $x = 2$, and $y = 5$

14) $y - x \div 3$; use $x = 3$, and $y = 5$

15) $y \div (y - x)$; use $x = 3.7$, and $y = 5.5$

16) $x - (3 - y)$; use $x = 2.4$, and $y = 1.5$

Simplify. Your answer should contain only positive exponents.

17) $5b^2 \cdot 4b^3$

18) $7a \cdot 3a^4$

19) $\frac{7n^4}{7n^2}$

20) $\frac{2n^2}{4n^4}$

Write each number in scientific notation.

21) 590000

22) 0.000044

Solve each equation.

23) $45 = 5x$

24) $k + 8 = -4$

25) $12 = 3 - 3p$

26) $\frac{4 + a}{2} = -8$

Write each as a decimal. Use repeating decimals when necessary.

27) $3\frac{3}{5}$

28) $\frac{2}{3}$

Write each as a percent. Use repeating decimals when necessary.

29) $\frac{3}{5}$

30) $7\frac{3}{4}$

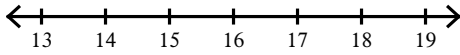
Write each as a fraction.

31) 0.65

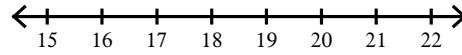
32) 0.28

Solve each inequality and graph its solution.

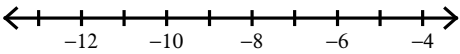
33) $6n \leq 102$



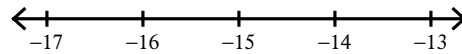
34) $8 + b \geq 25$



35) $6x + 10 \leq -38$



36) $3 + \frac{x}{3} \geq -2$



Solve each problem.

37) What percent of 134 is 57?

38) What percent of 134 is 75?

Find each percent change. Round to the nearest percent. State if it is an increase or decrease.

39) From 90 to 100

40) From 72 to 22

Find the selling price of each item.

41) Original price of a lizard: \$9.50
Discount: 30%

42) Original price of a truck: \$23,000.00
Discount: 15%

43) Original price of a comic book: \$3.50
Tax: 5%

44) Original price of an oil change: \$39.50
Tax: 3%

Use simple interest to find the ending balance.

45) \$900 at 8% for 6 years

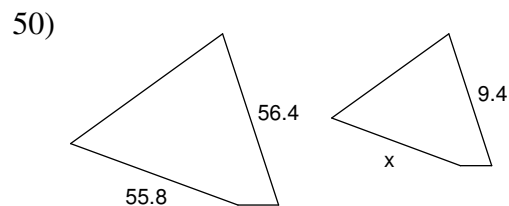
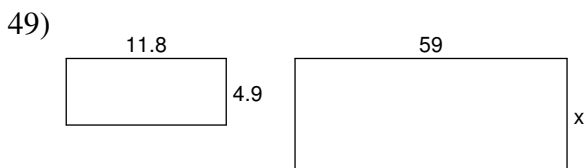
46) \$460 at 6% for 2 years

Solve each proportion.

47) $\frac{r}{9} = \frac{3}{6}$

48) $\frac{2}{8} = \frac{6}{n}$

Each pair of figures is similar. Find the missing side.



Final Exam (Part I) - Pre Test

Date _____ Period _____

Evaluate each expression.

1) $2 + \frac{5}{7}$ $2\frac{5}{7}$

2) $4\frac{1}{6} - 2\frac{5}{6}$ $1\frac{1}{3}$

3) $\frac{1}{6} + 1\frac{1}{3}$ $1\frac{1}{2}$

4) $\frac{4}{7} - \frac{1}{4}$ $\frac{9}{28}$

Write each as an algebraic expression.

5) 4 less than n is equal to $21n - 4 = 21$

6) a number increased by 10 $n + 10$

Simplify each expression.

7) $n + 7 + 5 + 6n$ $7n + 12$

8) $4n + 7 + 5$ $4n + 12$

9) $5(5x + 2)$ $25x + 10$

10) $3(2v - 3)$ $6v - 9$

11) $7(x - 1) + 8x$ $15x - 7$

12) $4 + 2(8k - 9)$ $-14 + 16k$

Evaluate each using the values given.

13) $x \div 2 + y$; use $x = 2$, and $y = 5$ 6

14) $y - x \div 3$; use $x = 3$, and $y = 5$ 4

15) $y \div (y - x)$; use $x = 3.7$, and $y = 5.5$ 3.05556

16) $x - (3 - y)$; use $x = 2.4$, and $y = 1.5$ 0.9

Simplify. Your answer should contain only positive exponents.

17) $5b^2 \cdot 4b^3$ $20b^5$

18) $7a \cdot 3a^4$ $21a^5$

19) $\frac{7n^4}{7n^2}$ n^2

20) $\frac{2n^2}{4n^4}$ $\frac{1}{2n^2}$

Write each number in scientific notation.

21) 590000 5.9×10^5

22) 0.000044 4.4×10^{-5}

Solve each equation.

23) $45 = 5x$ $\{9\}$

24) $k + 8 = -4$ $\{-12\}$

25) $12 = 3 - 3p$ $\{-3\}$

26) $\frac{4 + a}{2} = -8$ $\{-20\}$

Write each as a decimal. Use repeating decimals when necessary.

27) $3\frac{3}{5}$ 3.6

28) $\frac{2}{3}$ $0.\overline{6}$

Write each as a percent. Use repeating decimals when necessary.

29) $\frac{3}{5}$ 60%

30) $7\frac{3}{4}$ 775%

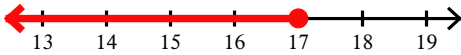
Write each as a fraction.

31) 0.65 $\frac{13}{20}$

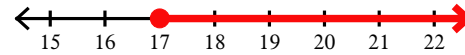
32) 0.28 $\frac{7}{25}$

Solve each inequality and graph its solution.

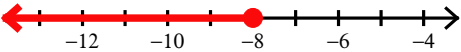
33) $6n \leq 102$



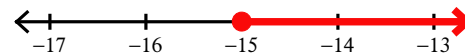
34) $8 + b \geq 25$



35) $6x + 10 \leq -38$



36) $3 + \frac{x}{3} \geq -2$



Solve each problem.

37) What percent of 134 is 57? 42.5%

38) What percent of 134 is 75? 56%

Find each percent change. Round to the nearest percent. State if it is an increase or decrease.

39) From 90 to 100 11% increase

40) From 72 to 22 69% decrease

Find the selling price of each item.

41) Original price of a lizard: \$9.50 ~~\$6.65~~
Discount: 30%

42) Original price of a truck: \$23,000.00 ~~\$19,550.00~~
Discount: 15%

43) Original price of a comic book: \$3.50 ~~\$3.68~~
Tax: 5%

44) Original price of an oil change: \$39.50 ~~\$40.69~~
Tax: 3%

Use simple interest to find the ending balance.

45) \$900 at 8% for 6 years \$1,332.00

46) \$460 at 6% for 2 years \$515.20

Solve each proportion.

47) $\frac{r}{9} = \frac{3}{6}$ {4.5}

48) $\frac{2}{8} = \frac{6}{n}$ {24}

Each pair of figures is similar. Find the missing side.

49) 24.5

50) 9.3