Hoover High School Pre-Algebra Ciphering 2011

480 1-1 A runner can run 2 miles in 16 minutes. If the runner keeps this same pace how many minutes will it take the runner to complete a 60 mile marathon?

122 1-2 Using the temperature formula: $C = \frac{5}{9}(F - 32)$ Find the temperature in Fahrenheit using 50˚C.

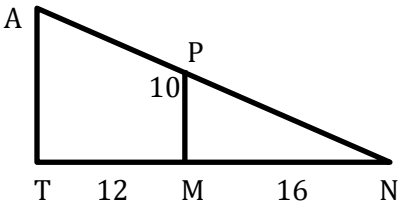
2 1-3 The area of a square is ¼ unit^2. Find the perimeter of the square.

1/10 1-4 Find the value of x: $\frac{x}{7} + \frac{2x}{7} + \frac{3x}{7} + \frac{4x}{7} = \frac{1}{7}$

-17/60 1-5 Simplify: $1 - \frac{1}{2} - \frac{1}{3} - \frac{1}{4} - \frac{1}{5} =$

35 2-1 The sum of three consecutive odd integers is 99. What is the value of the largest integer?

35/2 2-2 Triangle MNP is similar to triangle TNA. Find the length of AT.



16384 2-3 1, 2, 4, 8, 16,… For the pattern above, find the 15th term.

-2 2-4 Find the value of xy. $3xy + 5xy(2 - 4) = 14$

125% 2-5 If all the sides of a square are increased by 50%, find the percent increase in the area of the square.

4 3-1 Find the digit $\boldsymbol{n}$ in the number that makes the number divisible by both 3 and 9.

$509{,}9\boldsymbol{n}9$

66 3-2 Find the sum of the *three* missing integers such that the difference between the consecutive integers is the same. 12, ___, ___, ___, 32

4 3-3 For the inequality: $11 < x < 29$ How many prime numbers could be solutions?

16 3-4 Find x: $\sqrt{100} - \sqrt{x} = \sqrt{36}$

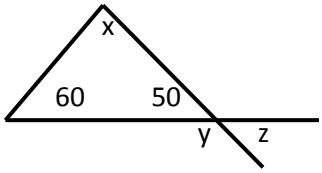
5/12x^3 3-5 Simplify completely:

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

9 4-1 Evaluate: $\frac{x^2y^2}{z^2}$ using: $x = 2$ $y = \frac{1}{2}$ $z = \frac{1}{3}$

$44 4-2 The first 10 contestants won $50 each. The next 15 contestants won $40 each. What was the average winnings for all 25 contestants?

250 4-3 Find the sum of the three angles x , y , z.



33 4-4 1/3 % of x is 66. Find 1/6 % of x.

1/6 4-5 Half of the students in a math class are boys. One third of the students in a science class are boys. Find the fractional probability of randomly choosing 1 boy from each class.