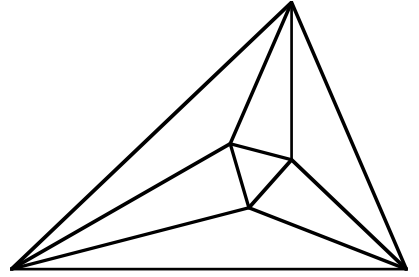


Meet 1 - Event A 2012-2013

Questions are worth 2-2-2-4-4 points respectively.
Remember your units.

NO CALCULATORS ALLOWED



_____ 1. Write the equation for two less than a number, n , is ten.

_____ 2. On a fishing trip the husband caught 52 walleye, 20 northern, and 23 sauger. The wife caught 70 walleye, 15 northern, and 5 sauger. What fraction of the fish caught were sauger caught by the husband?

_____ 3. Write as a decimal: $\frac{2}{5} + \frac{3}{4} \div 10 = ?$

_____ ^{min}4. How many minutes are there from 12:48 PM until 2:06 PM?

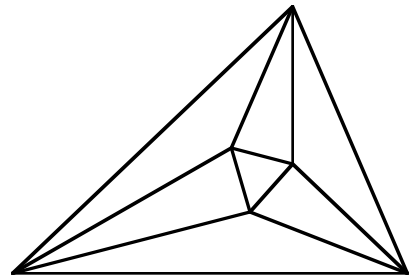
_____ 5. Write as a ratio of relatively prime numbers:

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

Meet 1 - Event A 2012-2013

Answers

Questions are worth 2-2-2-4-4 points respectively.
Remember your units.



$$\underline{n - 2 = 10} \quad 1.$$

$$\underline{\frac{23}{185}} \quad 2. \quad 52 + 20 + 23 + 70 + 15 + 5 = 185$$

$$\underline{\frac{0.475}{\text{or } .475}} \quad 3. \quad 0.4 + 0.75 \div 10 = 0.4 + 0.075 = 0.475$$

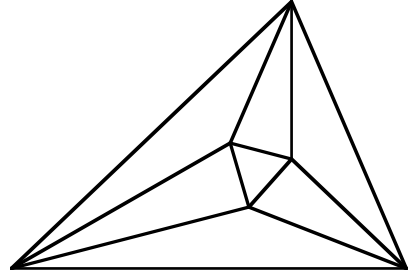
$$\underline{78 \text{ min.}} \quad 4. \quad 2:06 = 14:06 \text{ so } \begin{array}{r} 14:06 \Rightarrow 13:66 \\ -12:48 \\ \hline 1:18 \end{array} \quad \begin{array}{r} -12:48 \\ \hline 1:18 \end{array} = 60 + 18 = 78 \text{ min}$$

$$\underline{\frac{36}{11}} \quad 5. \quad 3 + \frac{1}{3 + \frac{2}{3}} = 3 + \frac{1}{\frac{11}{3}} = 3 + \frac{3}{11} = \frac{36}{11}$$

Meet 1 - Event B 2012-2013

Questions are worth 2-2-2-4-4 points respectively.
Remember your units.

NO CALCULATORS ALLOWED



_____ 1. How many integers are between 2012 and 3000, exclusive (not including 2012 or 3000)?

_____ ^{cm} 2. How many centimeters are in the sum of 115 mm and 20 cm and 1 m?

_____ 3. Simplify: $\frac{10 - 4 + 6 - ^{-}2}{^{-}7 + 5}$.

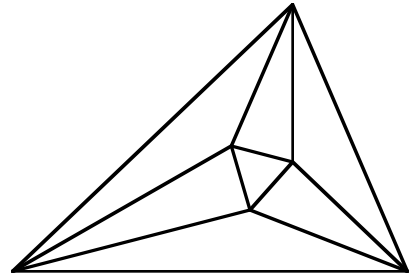
_____ 4. The difference of two numbers is 5. The sum of those two numbers is 83. What is the smaller number?

_____ 5. How many factors does 180 have?

Meet 1 - Event B 2012-2013

Answers

Questions are worth 2-2-2-4-4 points respectively.
Remember your units.



987 1. $3000 - 2012 = 988, 988 - 1 = 987$

131.5 cm 2. $11.5 \text{ cm} + 20 \text{ cm} + 100 \text{ cm} = 131.5 \text{ cm}$

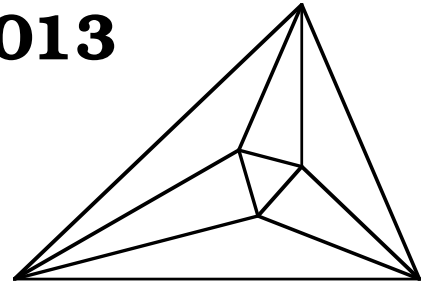
$\frac{-7}{\text{or } -7}$ 3. $\frac{10 - 4 + 6 - ^{-}2}{^{-}7 + 5} = \frac{14}{^{-}2} = ^{-}7$

39 4. $83 - 5 = 78$ which is twice the smaller number of 39
or $n - p = 5$
 $n + p = 83$
 $2n = 88, n = 44, 44 - 5 = 39$

18 5. $180 = 2^2 \cdot 3^2 \cdot 5^1$ so $(2+1)(2+1)(1+1) = 18$
Explanation: $2^0, 2^1, 2^2, 3^0, 3^1, 3^2, 5^0, 5^1$ are possible
The factors are: 1, 2, 3, 4, 5, 6, 9, 10, 12, 15, 18, 20, 30, 36, 45, 60, 90, 180

Meet 1 - Team Event 2012-2013

Questions are worth 4 points each.
Remember your units.



NO CALCULATORS ALLOWED

_____ 1. List all prime numbers between 160 and 170.

_____ 2. What is the greatest common factor between 78 and 84?

_____ min 3. How many minutes is it after 6:00 PM if 45 minutes ago it was four times as many minutes past 3:00 PM?

_____ 4. Write as a ratio of relatively prime numbers: $4\left(\frac{x}{5}\right) + 3\left(\frac{x}{2}\right)$.

_____ 5. If $16a4a2$ is divisible by 9, what digit is represented by a ?

_____ 6. What is three-fourths of two and two-fifths, as a mixed number?

_____ 7. What is the sum $a + b + c + d$: $\frac{25}{9} = a + \frac{1}{b + \frac{1}{c + \frac{1}{d}}}$?

_____ 8. Factor 2100 into primes of the appropriate power.

_____ 9. Simplify: $7 - 2(-5) + 4(3 + -2)$.

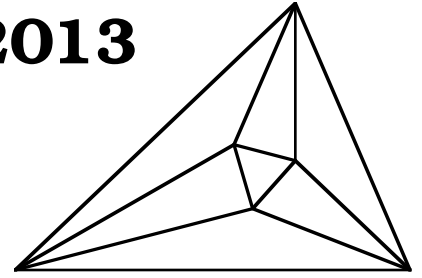
_____ 10. $x^3 = 64$, solve for x .

Meet 1 - Team Event

2012-2013

Answers

Questions are worth 4 points each.
Remember your units.



163, 167 1. Evens and 165 are obviously not prime. Since $169 = 13^2$, check for division (You must list exactly by integers below 13. $161 = 7 \times 23$. these two)

6 2. $78 = 2 \cdot 3 \cdot 13$, $84 = 2^2 \cdot 3 \cdot 7$, so $2 \cdot 3$ is common

45 min 3. $x = \text{minutes after 6}$, minutes between 3 and 6 = 180
 $180 + x - 45 = 4x$, $135 = 3x$, $x = 45 \text{ minutes}$

$\frac{23x}{10}$ 4. $\frac{4x}{5} + \frac{3x}{2} = \frac{8x}{10} + \frac{15x}{10} = \frac{23x}{10}$

7 5. The digits add to a number divisible by 9. $1 + 6 + a + 4 + a + 2 = 13 + 2a$, which must be odd. $13 + 2a = 27$, $a = 7$. Nothing else gives a digit.

$1\frac{4}{5}$ 6. $\frac{3}{4} \times 2\frac{2}{5} = \frac{3}{4} \times \frac{12}{5} = \frac{9}{5} = 1\frac{4}{5}$

8 7. $\frac{25}{9} = 2 + \frac{1}{1 + \frac{1}{3 + \frac{1}{2}}}$, $2 + 1 + 3 + 2 = 8$

$2^2 \cdot 3 \cdot 5^2 \cdot 7$ 8. $2100 = 2^2 \cdot 3 \cdot 5^2 \cdot 7$

21 9. $7 + 10 + 4(1) = 21$

4 10. $64 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 4 \cdot 4 \cdot 4$