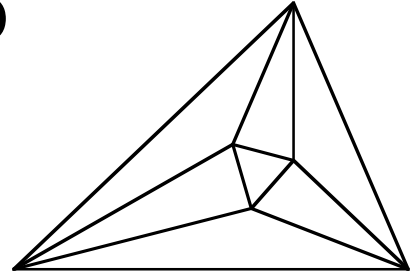


Meet 1 - Event A 2009-2010

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

NO CALCULATORS ALLOWED



_____ 1. Which number is prime?
6, 33, 51, 75, 101

_____ 2. Write the equation for: seventeen is four greater than a number, n .

_____ hrs 3. The party started at 10:30 am and went until 2 pm. How long was the party, in hours?

_____ 4. Change to a mixed number in lowest terms:

$$\frac{1203}{45}$$

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

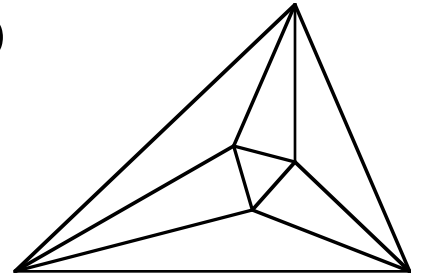
$$1 + \frac{1}{2 + \frac{1}{3}}$$

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Meet 1 - Event A 2009-2010

Answers

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



101 1. $6 = 2 \cdot 3$, $33 = 3 \cdot 11$, $51 = 3 \cdot 17$ (Note: $5+1=6$ which is divisible by 3), $75 = 3 \cdot 25$

$17 = n + 4$ 2. $17 = 4 + n$ or $17 = n + 4$

$3\frac{1}{2}$ hrs 3. $2\text{pm} = 14:00$, $14:00 - 10:30 = 3:30 = 3\frac{1}{2}$ hrs
or 3.5 hrs

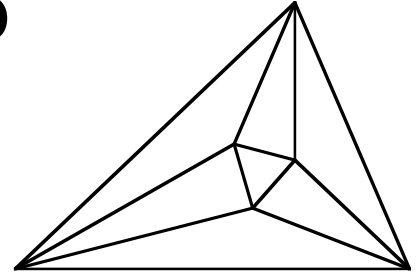
$26\frac{11}{45}$ 4.
$$\begin{array}{r} 26 \\ 45 \overline{)1203} \\ \underline{90} \\ 303 \\ \underline{270} \\ 33 \end{array} \quad \frac{33}{45} = \frac{11}{15}$$

$\frac{10}{7}$ 5. $1 + \frac{1}{\frac{3}{7}} = 1 + \frac{7}{3} = \frac{7}{7} + \frac{7}{3} = \frac{10}{3}$

Meet 1 - Event B 2009-2010

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

NO CALCULATORS ALLOWED



_____ 1. Is k an integer?
 $9k = 73284763$

_____ 2. Write the algebraic expression for the quotient of the sum of twice a number and one, and the difference of the same number and four. Let the number be n .

_____ m 3. How many meters is the sum of 4mm and 25cm and 0.8m?

_____ 4. The sum of three consecutive numbers is 45. What is the largest of these numbers?

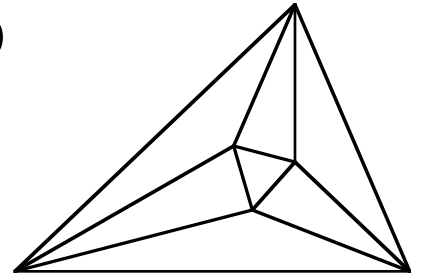
_____ 5. Simplify:
$$\frac{4 - \sqrt{12} - 3}{\sqrt{5} - 6 + \sqrt{2}}$$

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Meet 1 - Event B 2009-2010

Answers

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



No 1. $7 + 3 + 2 + 8 + 4 + 7 + 6 + 3 = 40$ which is not divisible by 9

$\frac{2n+1}{n-4}$ 2. Quotient, sum, and difference each imply at least two terms.

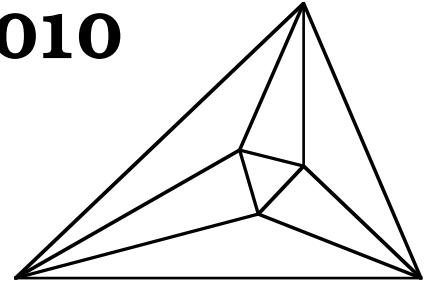
1.054m 3. $0.004m + 0.25m + 0.8m = 1.054m$

16 4. $45 \div 3 = 15$, so $15 + 15 + 15 = 45$. So move one unit from the first to the last 15:
 $14 + 15 + 16 = 45$

-1 5. $\frac{4 + ^+12 + ^-3}{^-5 + ^-6 + ^-2} = \frac{13}{^-13} = -1$

Meet 1 - Team Event 2009-2010

Questions are worth 4 points each.
Remember your units.



NO CALCULATORS ALLOWED

- _____ 1. Solve for x : $\frac{3x}{14} - \frac{1}{2} = 1$
- _____ 2. Write the equation for: The product of a number and one more than the number is the number increased by seven hundred seven. Let the number be n .
- _____ 3. Factor 560 into primes to the appropriate power.
- _____ 4. It is now four times as long since noon as it will be until 1 pm. What time is it?
- _____ 5. Simplify to a mixed number: $\frac{3}{4} + \frac{2}{5} - \frac{1}{10} = ?$
- _____ 6. Find the GCF of 63, 81, 108.
- _____ 7. In the word "mississippi," what fraction of the letters are "i"?
- _____ 8. Simplify: $\frac{7}{8} \div \frac{21}{32} + \frac{1}{6} \times 4 = ?$
- _____ 9. What fraction of a circle does the hour hand of a clock move through in one minute?
- _____ 10. Simplify: $12 + 4(-5) - 9 \div 3 - 2(-3 + -1) = ?$

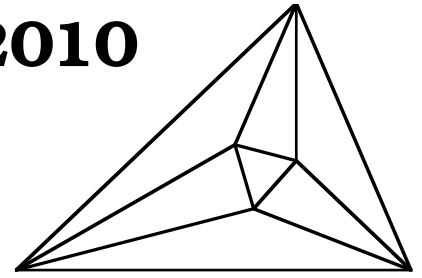
Meet 1 - Team Event

2009-2010

Answers

Questions are worth 4 points each.

Remember your units.



7 1. $\frac{3x}{14} - \frac{7}{14} = \frac{14}{14}$, so $3x - 7 = 14$, $3x = 21$, $x = 7$

$\frac{n(n+1) = n + 707}{\text{or } n^2 = 707}$ 2. $n(n+1) = n + 707$, $n^2 + n = n + 707$, $n^2 = 707$

$\frac{2^4 \cdot 5^1 \cdot 7^1}{\text{or } 2^4 \cdot 5 \cdot 7}$ 3. $560 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 5 \cdot 7$

12:48 pm 4. From noon until 1 is 60 minutes.
 $4x + x = 60$, $5x = 60$, $x = 12$, $60 - 12 = 48$

$1\frac{1}{20}$ 5. $\frac{3 \cdot 5}{20} + \frac{2 \cdot 4}{20} - \frac{1 \cdot 2}{20} = \frac{15 + 8 - 2}{20} = \frac{21}{20}$

9 6. $63 = \underline{3} \cdot \underline{3} \cdot 7$, $81 = \underline{3} \cdot \underline{3} \cdot 3 \cdot 3$, $108 = \underline{3} \cdot \underline{3} \cdot 3 \cdot 4$, GCF=9

$\frac{4}{11}$ 7. There are 11 letters and 4 of them are "i"

2 8. $\frac{\cancel{1}^1}{\cancel{1}_1} \times \frac{\cancel{3}^4}{\cancel{3}_3} + \frac{1}{\cancel{3}_3} \times \frac{\cancel{4}^2}{\cancel{1}_1} = \frac{4}{3} + \frac{2}{3} = \frac{6}{3} = 2$

$\frac{1}{720}$ 9. The hour hand moves through $1/12$ of a circle in 60 minutes, so

$$\frac{1}{12} \div 60 = \frac{1}{12} \times \frac{1}{60} = \frac{1}{720}$$

-3 10. $12 - 20 - 3 - 2(-4) = 12 - 20 - 3 + 8 = 20 - 23 = -3$