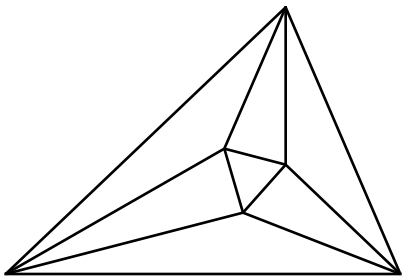
Meet 1 - Event A 2000-2001



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

_____1. Which one of these metric length equalities is labeled incorrectly?

_____2. Which is greatest?

$\frac{7}{13}$, $\frac{7}{12}$, 0.583, 0.584, 0.485

_____3. The ratio of the number of games won to the number of games lost (no ties) by the Middle School Middies is 12/5. What fraction of its games did the team lose? (AMC-8, 1999)

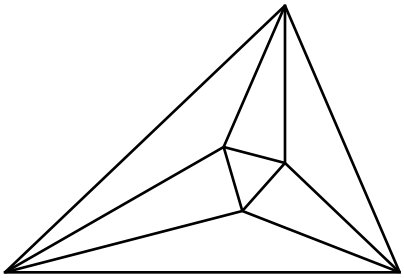
_____4. When the marching band lines up in rows of 2 or 3 or 5 or 6, there is one band member left over. However, the band can line up perfectly in rows of 7. If there are under 100 band members, how many band members are there?

_____5. Find both pairs of integers whose product is 352 and whose difference is 6.

_____

Name_____School_____

Meet 1 - Event A 2000-2001 Answers



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

km 1. $1m = 10dm = 100cm = 1000mm$
or 1000 km

0.584 2. $\frac{7}{13} = 0.538,\ \frac{7}{12} = 0.58\overline{3}$

$\frac{5}{17}$ 3. 12+5=17 games played.

91 4. Common multiples under 100 of 2, 3, 5, and 6 are 30, 60, and 90. Only 91 has a factor of 7.

16,22 (2 pts) 5. $352 = 2 \bullet 2 \bullet 2 \bullet 2 \bullet 2 \bullet 11$

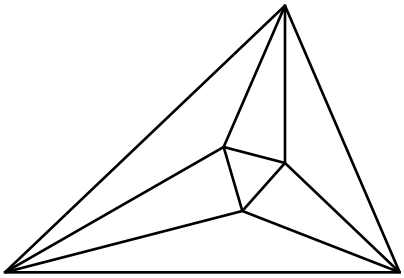
$352 = 32 \bullet 11,\quad 32 - 11 = 21$

-16,-22 (2 pts)

$352 = 16 \bullet 22,\quad 22 - 16 = 6$

$352 = {}^{-}16 \bullet {}^{-}22,\quad {}^{-}16 - {}^{-}22 = 6$

Meet 1 - Event B 2000-2001



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

_____1. Simplify to to a fraction in lowest terms:

$$\frac{^{-}9+3}{^{-}4+^{-}10-^{-}5}$$

_____2. Rewrite as one fraction:

$$\frac{3}{5}-\frac{a}{b}=$$

_____3. At Breezy Point, the moon rise and set times on a 24-hour clock for each date is in this table:

	January	
	Rise	Fall
Date	h m	h m
12	11:13	23:07
13	11:39	
14	12:06	00:16
15	12:35	01:27

For how long was the moon above the horizon on January 12th?

_____4. Refer to problem 3. How long was the moon above the horizon for the next two times (2 answers) after January 12th?

_____

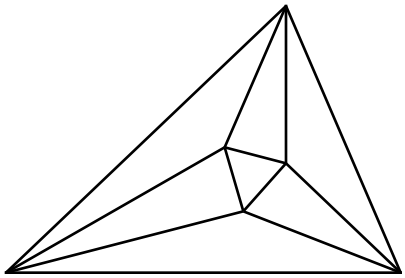
_____5. Simplify to one improper fraction:

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

Name_____School_____

Meet 1 - Event B 2000-2001

Answers



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

$\frac{2}{3}$ 1. $\frac{^-9+3}{^-4+^-10-^-5}=\frac{^-6}{^-9}=\frac{6}{9}=\frac{2}{3}$

$\frac{3b-5a}{5b}$ 2. $\frac{3b}{5b}-\frac{5a}{5b}=\frac{3b-5a}{5b}$

11 hrs 54 min 3.

$$\begin{array}{r} 23{:}07 = 22{:}67 \\ \underline{-11{:}13} \\ 11{:}54 \end{array}$$

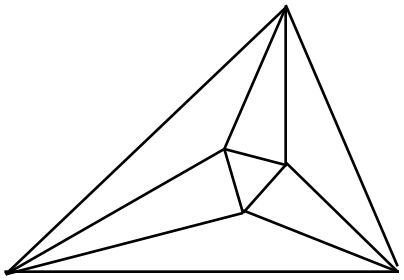
12 hrs 37 min 4.

13 hrs 21 min

$$\begin{array}{r} 00{:}16 = 24{:}16 = 23{:}76 \\ \underline{-11{:}39} \\ 12{:}37 \end{array} \qquad \begin{array}{r} 01{:}27 = 25{:}27 \\ \underline{-12{:}06} \\ 13{:}21 \end{array}$$

$\frac{33}{10}$ 5. $3+\frac{\frac{1}{10}}{3}=3+\frac{3}{10}=\frac{33}{10}$

Meet 1 - Event C 2000-2001



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

_____1. Solve for n: $3n + 8 = 17$

_____2. Solve for x as a fraction: $^{-}5(x - {}^{-}4) = {}^{-}17$

_____3. Solve for y as a fraction: $\dfrac{y + \frac{5}{6}}{1\frac{1}{2}} = \dfrac{2}{3}$

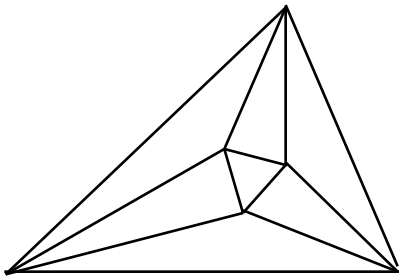
_____4. When the marching band lines up in rows of 2 or 3 or 5 or 6, there is one band member left over. However, the band can line up perfectly in rows of 7. If there are under 100 band members, how many band members are there?

_____5. Find both pairs of integers whose product is 352 and whose difference is 6.

_____

Name_____School_____

Meet 1 - Event C 1999-2000 Answers



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

3 1. $3n+8=17,\quad 3n=9,\quad n=3$

-3/5 2. $^{-}5(x+4)=^{-}17,\quad ^{-}5x-20=^{-}17,\quad ^{-}5x=3,\quad x=-\frac{3}{5}$

1/6 3. $y+\frac{5}{6}=\frac{2}{3}\times 1\frac{1}{2}=\frac{2}{3}\times\frac{3}{2}=1,\quad y=1-\frac{5}{6}=\frac{1}{6}$

91 4. Common multiples under 100 of 2, 3, 5, and 6 are 30, 60, and 90. Only 91 has a factor of 7.

16,22 (2 pts) 5. $352=2\bullet 2\bullet 2\bullet 2\bullet 2\bullet 11$

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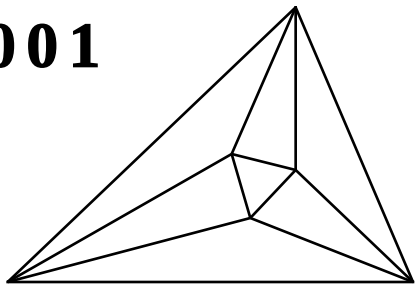
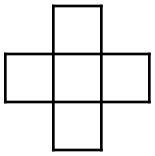
Meet 1 - Team Event 2000-2001



Questions are worth 4 points each.
Remember your units.

_____ 1. Each of the five numbers 1, 4, 7, 10, and 13 is placed in one of the five squares so that the sum of the three numbers in the horizontal row equals the sum of the three numbers in the vertical column. What is the smallest possible values for the horizontal or vertical sum? (AMC-8,1999)



_____ 2. Find $a+b+c$ if $\frac{33}{7} = a - \frac{1}{b-\frac{1}{c}}$ and a, b, and c are positive integers.

_____ 3. What is the largest number that is the product of three double digit prime numbers?

_____ 4. Jennifer bought three cans of soup for $0.86 each, cereal for $2.49, two loaves of bread for $2.30 each and a 6 pack of pop for $1.59. How much change did she receive from a twenty dollar bill?

_____ 5. Five girls are going to see a new movie. It will cost $15 for two of them. How much will it cost for all five of them if all the tickets are the same price?

_____ 6. Solve for x if $\frac{x-2}{3} = 4$

_____ 7. What is the decimal value of $\frac{4-^{-}10+3\times^{-}15}{3\left(^{-}4+^{-}1\right)+4}$?

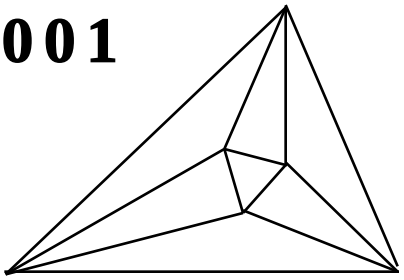
_____ 8. Joe had 70 inches of string, Janis had 4 feet of string, and Jack had 2 feet 7 inches of string. If 4 inches of string is used to tie one knot, what is the longest length of string that can be made by tying their pieces together?

_____ 9. Find the remainder when (1943)(1952)(1963)(2017) is divided by 5.

_____mg 10. A piece of wood weighing 10.730 grams was placed in a dish weighing 2.525 grams and the wood was burned until it was ash. The dish containing the ash weighed 2.987 grams. How many milligrams did the ash weigh?

School_____

Meet 1 - Team Event 2000-2001 Answers



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

18 1.

	10	
4	1	13
	7	

11 2. $\frac{33}{7} = 5 - \frac{2}{7} = 5 - \frac{1}{7/2} = 5 - \frac{1}{4 - \frac{1}{2}}, \quad 5 + 4 + 2 = 11$

716539 3. $97 \bullet 89 \bullet 83 = 716539$

$8.74 4. $3(0.86) + 2.49 + 2(2.30) + 1.59 = \$11.26, \quad \$20 - \$11.26 = \$8.74$

$37.50 5. $\$15 \div 2 = \$7.50$ per girl, $5 \times \$7.50 = \$37.50$

14 6. $x - 2 = 12, \; x = 14$

$2.\overline{81}$ 7. $\frac{4 + 10 - 45}{3(-5) + 4} = \frac{-31}{-11} = 2.\overline{81}$

141 in 8. 70"+4(12")+2(12")+7"=149" There would be two knots so 149"-2(4")=141" or 11 ft 9 in

1 9. Only the last digit matters so: $3 \times 2 \times 3 \times 7 = 126, \quad 6 \div 5 = 1$ remainder 1

462mg 10.

$$\begin{array}{rl} 2.987 & \text{- dish plus ash} \\ -2.525 & \text{- empty dish} \\ \hline 0.462\text{g} & = 462\text{mg} \end{array}$$