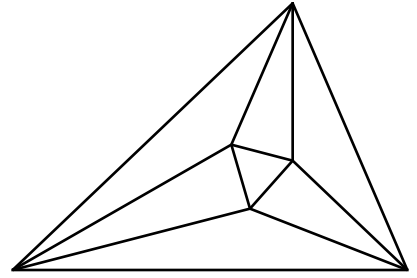


Meet 2 - Event A 2001-2002

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



_____ 1. $|-5 + 3| - |2 - 6| = ?$

_____ 2. Write in scientific notation: 3,210,000.

_____ 3. Find the midpoint between 1.7 and 98.5.

_____ 4. Write the algebraic equation for: four less than twice a number, n , is thirty six.

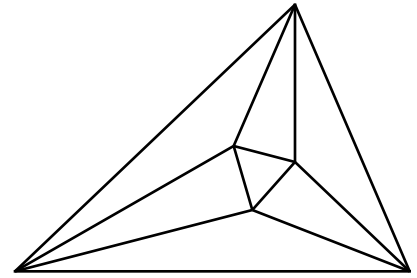
_____ 5. Write as one factorial: $2^{16} \cdot 3^8 \cdot 5^3 \cdot 7^2 \cdot 11 \cdot 13 \cdot 17$.

Name _____ School _____

Meet 2 - Event A 2001-2002

Answers

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



-2 1. $|-2| - |-4| = 2 - 4 = -2$

3.21×10^6 2. Move the decimal point 6 places to the left.

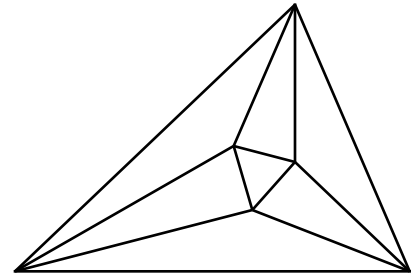
50.1 3. $(1.7+98.5)/2=50.1$ or $98.5-1.7=96.8$, $1.7+96.8/2=50.1$

$2n - 4 = 36$ 4.

18! 5. The 17 shows it must be at least 17!. If you write out the factors of 17! you have $2 \cdot 3 \cdot 3 = 18$ left over.
OR: It must be 18! or 17! because there is no 19, so figure out the 3's to see it is 18!.

Meet 2 - Event B 2001-2002

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



_____ 1. Find the distance between -11.6 and $+12.4$.

_____ 2. Write the prime factorization of 600 using exponents.

_____ 3. On a straight road, Josh lives at mile marker 22. If Yia lives 3 miles from Josh, at what mile marker does Yia live?

_____ 4. What is the coordinate of the point $\frac{3}{5}$ of the way from 25 to -30 ?

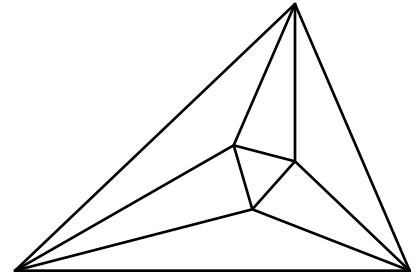
_____ 5. A whale head is 70 inches long. It's tail is as long as it's head plus half the length of the body. The body is half the entire length of the whale (tail+body+head). What is the entire length of the whale?

Name _____ School _____

Meet 2 - Event B 2001-2002

Answers

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

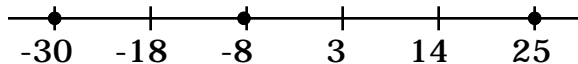


2 1. $12.4 - ^-11.6 = 12.4 + 11.6 = 24$

$2^3 \cdot 3 \cdot 5^2$ 2.

19 or 25 3. $22+3=25$
 (must have both) $22-3=19$

-8 4. $25 - ^-30 = 55$ spaces total. $(\frac{3}{5}) \times 55 = 33$ From 25 to ^-30 is moving left so $25 - 33 = ^-8$.



540 inches 5. $B = \text{length of body}$, $W = \text{length of whale}$
 or 46 ft 8 in

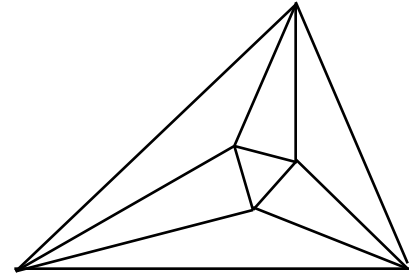
$70 + \frac{1}{2}B$ $\frac{1}{2}W$ 70

$$\frac{1}{2}B = \frac{1}{2}\left(\frac{1}{2}W\right) = \frac{1}{4}W \quad W = 70 + \frac{1}{4}W + \frac{1}{2}W + 70 = 140 + \frac{3}{4}W$$

$$\frac{1}{4}W = 140 \quad W = 560 \text{ inches}$$

Meet 2 - Event C 2001-2002

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



_____ 1. Find all possible values for x : $|3 - x| = 5$.

_____ 2. Write as a fraction with all positive exponents: $3a^{-2}b^3$.

_____ 3. Write $7!(6!)$ as one factorial.

_____ 4. Write as a fraction with all negative exponents: $\frac{4x^{-2}y^3}{5z^{-1}}$.

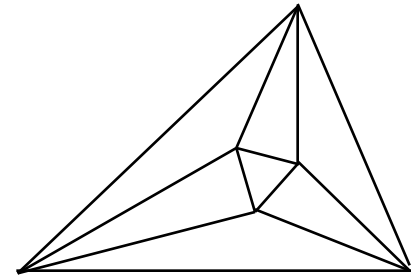
_____ 5. Write as one factorial: $2^{16} \cdot 3^8 \cdot 5^3 \cdot 7^2 \cdot 11 \cdot 13 \cdot 17$.

Name _____ School _____

Meet 2 - Event C 2001-2002

Answers

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



-2,8 1. $3 - x = 5$ $3 - x = -5$
 $-x = 2$ $-x = -8$
 $x = -2$ $x = 8$

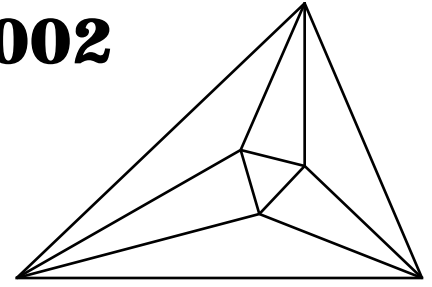
$\frac{3b^3}{a^2}$ 2. $a^{-2} = \frac{1}{a^2}$. The 3 is raised to the +1 power.

10! 3. $2 \cdot 3 \cdot 4 \cdot 5 \cdot 6 \cdot 2 \cdot 3$

$\frac{5^{-1}x^{-2}}{4^{-1}y^{-3}z^{-1}}$ 4. $4^1 = \frac{1}{4^{-1}}$ $y^3 = \frac{1}{y^{-3}}$ $\frac{1}{5} = 5^{-1}$ $\frac{5^{-1}x^{-2}}{4^{-1}y^{-3}z^{-1}}$
 (4^{-1} may be replaced with 2^{-2} and count as correct.)

18! 5. The 17 shows it must be at least 17!. If you write out the factors of 17! you have $2 \cdot 3 \cdot 3 = 18$ left over.
 OR: It must be 18! or 17! because there is no 19, so figure out the 3's to see it is 18!.

Meet 2 - Team Event 2001-2002



Questions are worth 4 points each.
Remember your units.

- _____ 1. What is the greatest number of factors that a positive integer less than 100 can have?
- _____ 2. Write $7!(6!)$ as one factorial.
- _____ 3. $|^{-5}| + |2| - |^{-7} + ^{-3}| = ?$.
- _____ 4. What is the next number in this sequence: 0, 3, 8, 15, 24, ___?
- _____ 5. What is the next number in this sequence: 100, 99, 95, 86, 70, ___?
- _____ 6. Use the digits 1, 2, 3, 4, and 5 and math symbols such as +, etc., to create an expression equal to 146. Use each digit only once.
- _____ 7. Write as an algebraic expression: the quotient of twice a number, n , plus two and seventeen.
- _____ 8. A is the point -2 on a number line. Point B is five units from A and point C is two units from B . What are the possible locations for C ?
- _____ 9. Solve for x : $25^2 x^4 = 625^3$.
- _____ 10. On a number line, a certain integer is 8 units away from three times its opposite. What are the two possible integers that meet this condition?

School _____

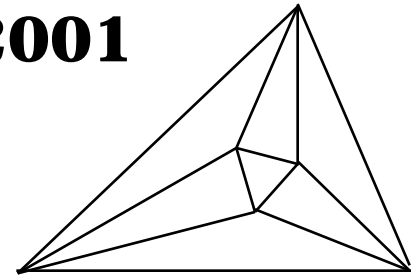
Meet 2 - Team Event

2000-2001

Answers

Questions are worth 4 points each.

Remember your units.



12 1. $2^5 \cdot 3^1 = 96$ $(5+1)(1+1) = 12$ factors
 $2^3 \cdot 3^2 = 72$ $(3+1)(2+1) = 12$ factors
(See Meet 1 Team Event question 1.)

10! 2.

-3 3. $5 + 2 - 10 = -3$

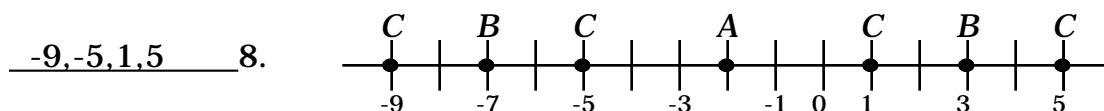
35 4. $24 + 11 = 35$ or $n^2 - 1$ so $6^2 - 1$

45 5. $a_{n-1} - n^2 = 70 - 5^2 = 45$

$5! + 4! + \frac{3+1}{2}$ 6. $5! + 4! + \frac{3+1}{2} = 120 + 24 + 2 = 146$

Please check any other answers

$\frac{2n+2}{17}$ 7.



25 9. $x^4 = \frac{625^2}{25^2} = \frac{(25^2)^3}{25^2} = \frac{25^6}{25^2} = 25^4$ or $x = (625^3 / 25^2)^{1/4}$

-2, 2 10. $|x - 3(-x)| = 8$
 $|x + 3x| = 8$
 $|4x| = 8$
 $|x| = 2$