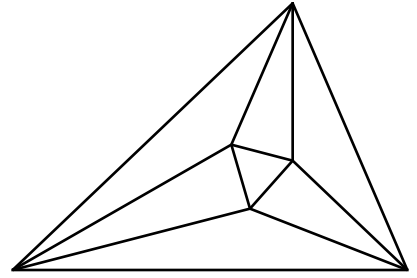


Meet 2 - Event A 2003-2004

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



_____ 1. $|-16 -^{-} 10| = ?$

_____ 2. Write 0.00102 in scientific notation.

_____ 3. Simplify and write in scientific notation: $(2 \times 10^{25})(9 \times 10^{30}) = ?$

_____ PM 4. The hotdish baked from 4:52 PM until 5:42 PM. When was the hotdish half way through this baking?

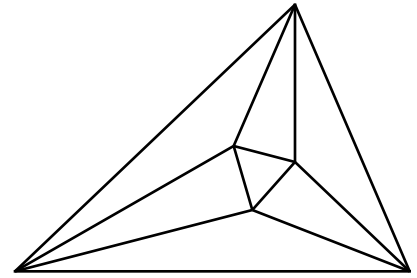
_____ 5. Write 30240 as a quotient of two factorials that is **NOT** $\frac{30240!}{30239!}$.

Name _____ School _____

Meet 2 - Event A 2003-2004

Answers

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



6 1. $|-16 + 10| = |-6| = 6$

1.02×10^{-3} 2.

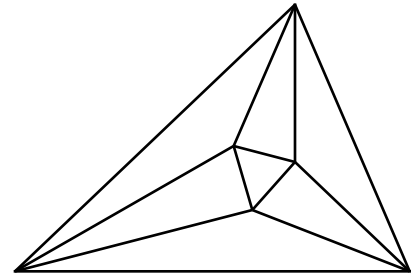
1.8×10^{56} 3. $18 \times 10^{55} = 1.8 \times 10^{56}$
(1.8E56 is calculator notation and is **NOT** scientific notation.)

5:17 PM 4. $5:42 = 4:102 - 4:52 = 50\text{minutes}$, $\frac{50}{2} = 25$ so $4:52 + 0:25 = 4:77 = 5:17$

$\frac{10!}{5!}$ 5. $30240 = 2^5 3^3 5^1 7^1$ so rewrite as $(2 \cdot 3) \cdot 7 \cdot 2^3 \cdot 3^2 \cdot (2 \cdot 5) = 6 \cdot 7 \cdot 8 \cdot 9 \cdot 10 = \frac{10!}{5!}$

Meet 2 - Event B 2003-2004

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



_____ 1. If x is a negative number, what is $|x|$?

_____ 2. Write as a fraction with no negative exponents: $5a^{-2}bc^{-3}$.

_____ 3. Write the algebraic expression for two less than the product of a number and one less than the number. Let n be the number.

_____ 4. Find all possible values for x if $|5x - 7| = 0.75$.

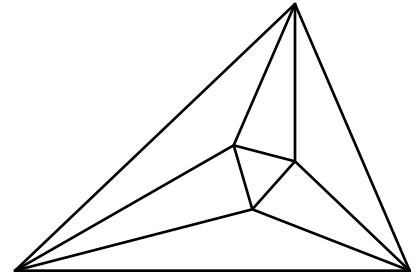
_____ 5. In a 100 meter race, Nancy tripped and fell $\frac{3}{4}$ of the way from start to finish. When Nancy fell, Joanne was $\frac{4}{5}$ as far as Nancy from the start of the race. How far from the finish line was Joanne when Nancy fell?

Name _____ School _____

Meet 2 - Event B 2003-2004

Answers

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



-x 1. Let $x = -2$, $|-2| = 2 = -(-2)$

$\frac{5b}{a^2c^3}$ 2.

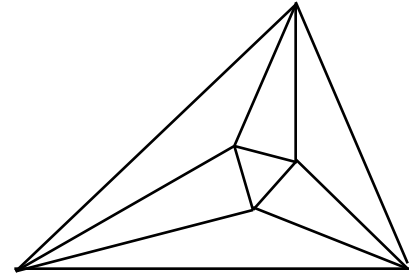
$\frac{n(n-1)-2}{n^2-n-2}$ 3. $n(n-1)-2$

1.55, 1.25 4. $5x - 7 = 0.75$, $5x = 7.75$, $x = 1.55$
 $5x - 7 = -0.75$, $5x = 6.25$, $x = 1.25$
or 1.25, 1.55

40 m 5. Nancy fell 75 m from the start. Joanne was $\frac{4}{5} \times 75 = 60$ m from the start.
 $100 - 60 = 40$ m from the finish.

Meet 2 - Event C 2003-2004

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



_____ 1. What value is $\frac{2}{3}$ of the way from -9 to 9 ?

_____ 2. What is the next number in the sequence $-8, -1, 0, 1, 8, \underline{\quad}$?

_____ 3. Use absolute value to write the algebraic expression for x is 5 units from -3 .

_____ PM 4. The hotdish baked from 4:52 PM until 5:42 PM. When was the hotdish half way through this baking?

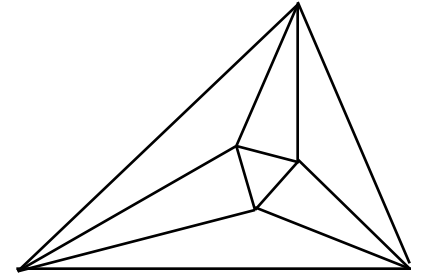
_____ 5. Write 30240 as a quotient of two factorials that is **NOT** $\frac{30240!}{30239!}$.

Name _____ School _____

Meet 2 - Event C 2003-2004

Answers

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



3 1. $9^{-} 9 = 18$, $18 \times \frac{2}{3} = 12$, $^{-} 9 + 12 = 3$

27 2. $(^{-} 2)^3, (^{-} 1)^3, 0^3, 1^3, 2^3, 3^3$

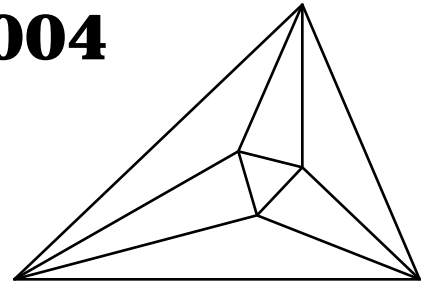
$|x + 3| = 5$ 3. $|x - 3| = 5$ or $|x + 3| = 5$

5:17 PM 4. $5:42 = 4:102 - 4:52 = 50\text{minutes}$, $\frac{50}{2} = 25$ so $4:52 + 0:25 = 4:77 = 5:17$

$\frac{10!}{5!}$ 5. $30240 = 2^5 3^3 5^1 7^1$ so rewrite as $(2 \cdot 3) \cdot 7 \cdot 2^3 \cdot 3^2 \cdot (2 \cdot 5) = 6 \cdot 7 \cdot 8 \cdot 9 \cdot 10 = \frac{10!}{5!}$

Meet 2 - Team Event 2003-2004

Questions are worth 4 points each.
Remember your units.



- _____ 1. A pattern is made by drawing a straight line up 1, then right 2, then down 3, then left 4, then up 5, right 6, etc. This makes many vertical and horizontal line segments. How far apart are the vertical segments?
- _____ 2. Solve for x : $x^4 = 9^2$
- _____ 3. Solve for x if $x^{2c} = 16^c$.
- _____ 4. $|-2| + |3| - |-10| = ?$
- _____ 5. If four more than twice a number is three less than the number, what is the number?
- _____ 6. Simplify: $\frac{x^3 y^2}{x^4}$.
- _____ 7. What is the next number in this sequence: 1, 1, 2, 3, 4, 9, 8?
- _____ 8. What is the next number in this sequence: 2, -7 , 12, -17 , 22?
- _____ 9. Write the algebraic expression, letting n be the number, for the quotient of the sum of the number and three and five less than the number.
- _____ 10. If A, B, C, and D are on a number line and A is 6 units from B, B is 10 units from C, and C is 1 unit from D, what are all the possible distances from A to D?

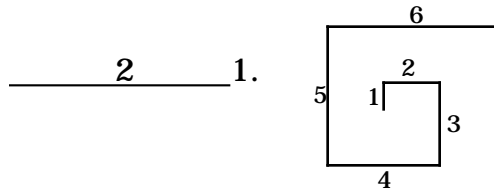
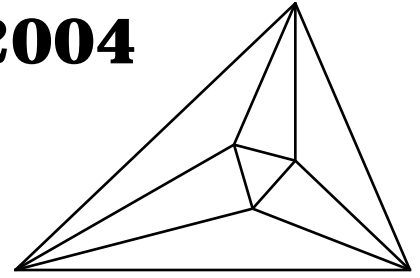
School _____

Meet 2 - Team Event

2003-2004

Answers

Questions are worth 4 points each.
Remember your units.



_____ +3, -3 _____ 2. $x^4 = 81, x = (81)^{\frac{1}{4}} = \pm 3$ or $9 = (\pm 3)^2$ so $9^2 = (\pm 3)^4$

_____ +4, -3 _____ 3. $16 = (\pm 4)^2$ so $16^c = (\pm 4)^{2c}$ so $x = \pm 4$

_____ -5 _____ 4. $2 + 3 - 10 = -5$

_____ -7 _____ 5. $2n + 4 = n - 3, 2n = n - 7, n = -7$

_____ $x^{-1}y^2$ or $\frac{y^2}{x}$ _____ 6. $x^{(3-4)}y^2 = x^{-1}y^2$ or $\frac{y^2}{x}$

_____ 27 _____ 7. $2^0, 3^0, 2^1, 3^1, 2^2, 3^2, 2^2, 3^3$

_____ -27 _____ 8. Add 5 and change the sign.

_____ $\frac{n+3}{n-5}$ _____ 9.
or $(n+3)/(n-5)$

