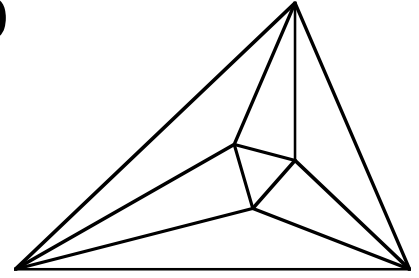


Meet 2 - Event A 2008-2009

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



_____ 1. Write in scientific notation:
4720.00

_____ 2. Solve for **both** values of x :
 $|x + 3| = 1$

_____ 3. What is the missing value in this sequence?
-6, ____, 4, 9

_____ 4. On a number line, if 1.2 is the midpoint between 8 and point B , what is the coordinate of B ?

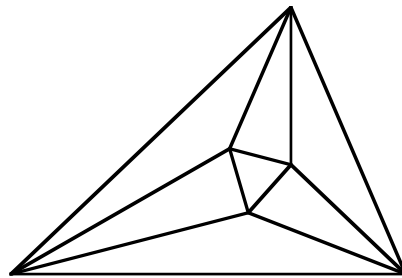
_____ 5. On a number line, if the midpoint of A and B is 7, the midpoint of B and C is 9, and the coordinate of C is 12, what is the coordinate of A ?

Name _____ School _____

Meet 2 - Event A 2008-2009

Answers

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



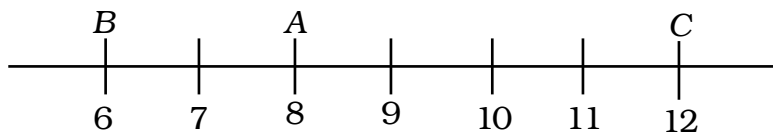
4.72×10^3 1. $4720.00 = 4.72 \times 10^3$

-2, -4 2. $x + 3 = 1$, $x = -2$ or $x + 3 = -1$, $x = -4$

-1 3. $9 - 4 = 5$ and $4 - (-6) = 10$, so the values are increasing by 5. $-6 + 5 = -1$

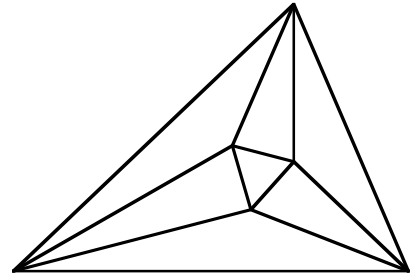
-5.6 4. $8 - 1.2 = 6.8 =$ half the distance from B to 8. $1.2 - 6.8 = -5.6$
Since 8 is above 1.2 B must be below 1.2, so subtract 6.8 from 1.2.

8 5. $12 - 9 = 3 =$ half the BC distance. $9 - 3 = 6 = B$.
If 7 is the midpoint between 6 and A , $A = 8$.



Meet 2 - Event B 2008-2009

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



_____ 1. Solve for x if $-12 = 2x - 4$

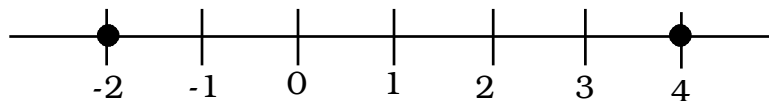
_____ 2. Simplify:

$$\frac{2^{-3} \cdot 4^2}{3^{-2} \cdot 7^0}$$

_____ 3. On a number line, what is the coordinate of the point one third of the way from zero to negative nine?

_____ 4. Solve for x as a mixed number: $3(x - 2) = 4(1 - x)$

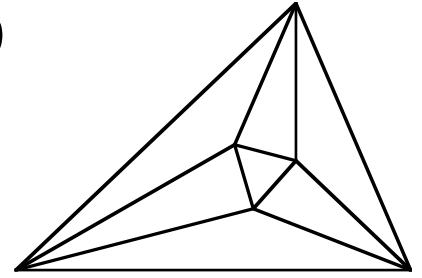
_____ 5. Write the absolute value equation for this graph:



Meet 2 - Event B 2008-2009

Answers

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



-4 1. $-12 = 2x - 4 \Rightarrow -8 = 2x \Rightarrow x = -4$

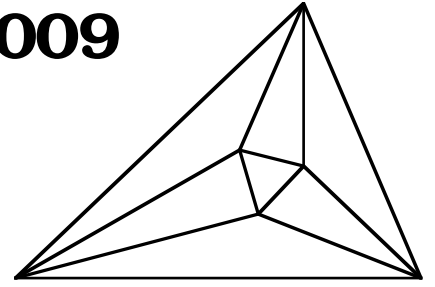
18 2. $2^{-3} = \frac{1}{2^3}$, $\frac{1}{3^{-2}} = 3^2$ so $\frac{2^{-3} \cdot 4^2}{3^{-2} \cdot 7^0} = \frac{3^2 \cdot 4^2}{2^3 \cdot 7^0} = \frac{9 \cdot 16}{8 \cdot 1} = 18$

-3 3. $0 - -9 = 9$ units total distance $\frac{1}{3}(9) = 3$ units from 0 towards -9

$1\frac{3}{7}$ 4. $3x - 6 = 4 - 4x$, $7x - 6 = 4$, $7x = 10$, $x = \frac{10}{7} = 1\frac{3}{7}$

$|x-1|=3$ 5. The center of -2 and 4 is $\frac{-2+4}{2} = 1$. Both -2 and 4 are 3 units from 1, so $|x-1|=3$

Meet 2 - Team Event 2008-2009



Questions are worth 4 points each.
Remember your units.

_____ 1. What value of x satisfies both conditions?

$$|x + 3| = 5 \text{ and } |2x - 3| = 19$$

_____ 2. Solve for x : $7 - 3(x - 2) = 1 - x$?

_____ 3. Solve for all possible values of x : $x^4 = 81$

_____ 4. Solve for x : $1.2(x - 4.5) = 7.4(2x) - 13.56$

_____ 5. Simplify: $(-3)^2 - 4^2 + 14^0$

_____ 6. What is the next term: 109, 68, 41, 27, 14, _____

_____ 7. On a number line, point A is one third of the way from B to C. If point A has a coordinate of $\frac{2}{3}$ and point C has a coordinate of 5, what is the coordinate of point B, as a reduced mixed number?

_____ 8. Solve for x : $2|x - 5| = x + 3$

_____ 9. What factorial has the same value as $2^8 \cdot 3^4 \cdot 5^2 \cdot 7 \cdot 11$?

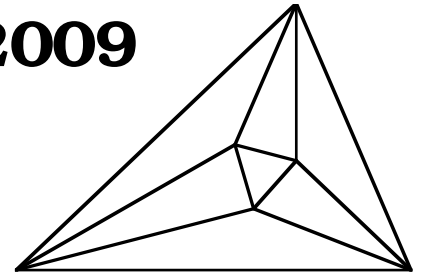
_____ 10. What is the next term: -3, 6, -12, 24, _____

Meet 2 - Team Event

2008-2009

Answers

Questions are worth 4 points each.
Remember your units.



-8 1. $x+3=5 \Rightarrow x=2$ or $x+3=-5 \Rightarrow x=-8$
 $2x-3=19 \Rightarrow 2x=22 \Rightarrow x=11$ or $2x-3=-19 \Rightarrow 2x=-16 \Rightarrow x=-8$

6 2. $7-3x+6=1-x$, $13-3x=1-x$, $-2x=-12$, $x=6$

3, -3 3. $x^4 = 3 \cdot 3 \cdot 3 \cdot 3$ or $x^4 = -3 \cdot -3 \cdot -3 \cdot -3$ so $x = 3, -3$

0.6 4. $1.2x-5.4=14.8x-13.56$, $13.56-5.4=14.8x-1.2x$, $\frac{8.16}{13.6} = \frac{13.6x}{13.6}$, $0.6=x$

-6 5. $(-3)(-3) - 4 \cdot 4 + 1 = 9 - 16 + 1 = -6$

13 6. $\frac{109}{41} \frac{68}{27} \frac{41}{14} \frac{27}{13} \frac{14}{13}$

$-1\frac{1}{2}$ 7. $5 - \frac{2}{3} = 4\frac{1}{3} = \frac{13}{3}$, $\frac{13}{3} \times \frac{1}{2} = \frac{13}{6}$ = length of one section
 $\frac{2}{3} - \frac{13}{6} = \frac{4}{6} - \frac{13}{6} = \frac{-9}{6} = -1\frac{1}{2}$

13, $2\frac{1}{3}$ 8. $2x-10=x+3$, $x=13$ or $2x-10=-x-3$. $3x=7$, $x=\frac{7}{3}=2\frac{1}{3}$

(both answers required)

11! 9. $11! = 11 \cdot (5 \cdot 2) \cdot (3 \cdot 3) \cdot (2 \cdot 2 \cdot 2) \cdot 7 \cdot (3 \cdot 2) \cdot 5 \cdot (2 \cdot 2) \cdot 3 \cdot 2 \cdot 1$

-48 10. Each term is multiplied times -2 to get the next term, so $24(-2) = -48$