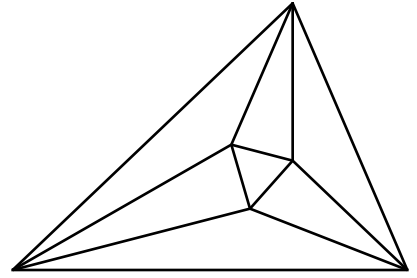


Meet 3 - Event A 2000-2001

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



_____ 1. What is 15% of \$30.00?

_____ 2. Solve for x if $\frac{9}{x} = \frac{4}{13}$

_____ 3. Solve for x if $10 = 3x - 7$

_____ 4. Abe, Bob, Cal, Dave, and Ed have different amounts of money. Neither Bob nor Cal has as much as Dave. Both Cal and Abe have more than Ed. Bob has more than Ed, but less than Cal. Who has the least amount of money?
(AMC-8, 1999)

a _____ 5. Moua lives 40 miles west of town and drives to Vang's house which is 50 miles east of town.

b _____ a. How far apart do Moua and Vang live?

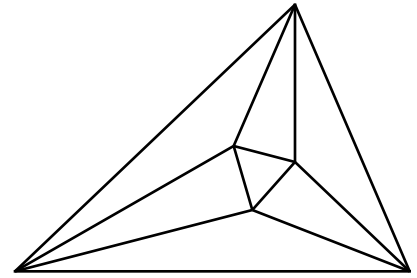
b. If Moua drives at 45 miles per hour, how long does it take for him to drive to Vang's house?

Name _____ School _____

Meet 3 - Event A 2000-2001

Answers

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



\$4.50 1. $0.15(\$30) = \4.50

29.25 2. $4x = 9(13) \quad x = \frac{117}{4} = 29.25$

$5\frac{2}{3}$ 3. $10 + 7 = 3x - 7 + 7$
or $5.\bar{6}$ $17 = 3x$
 $x = \frac{17}{3} = 5\frac{2}{3}$

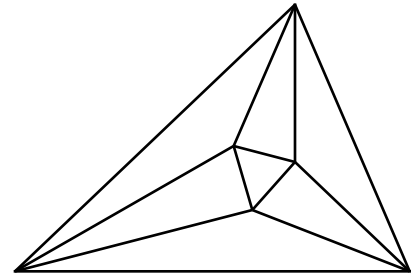
Ed 4. $D > B, D > C, C > E, A > E, B > E, C > B$
so $D > C > B > E$ and $A > E$

a (2 pts) 90 miles 5. $40 \text{ west} + 50 \text{ east} = 90 \text{ miles apart}$ or $50 - 40 = 90$

b (2 pts) 2 hours $\frac{90 \text{ miles}}{45 \text{ mph}} = 2 \text{ hours}$

Meet 3 - Event B 2000-2001

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



_____ 1. Solve for x : $3(x + 2) = 18$

_____ 2. What percent of \$200 is 50 cents?

_____ 3. The ratio of the sides of a triangle is 7:8:9. If the shortest side of the triangle is 3.5 cm, what is the perimeter of the triangle?

_____ 4. Sarah got on the turnpike at toll booth #3, mile marker #124, at 10:15 AM. The speed limit was 70 mph. If she did not speed, what is the earliest she could get to toll booth #10 at mile marker #640, to the nearest minute?

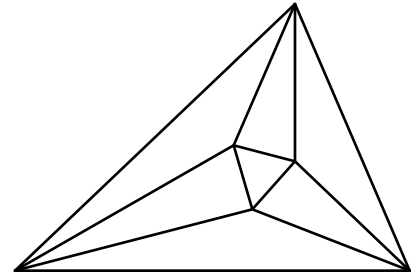
_____ 5. A 50 foot length of rope fits perfectly around Niel's circular garden. What is the diameter of the garden to 3 significant figures?

Name _____ School _____

Meet 3 - Event B 2000-2001

Answers

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



4 1. $3x + 6 = 18$
 $3x = 12$
 $x = 4$

0.25% 2. $\frac{0.50}{200} = 0.0025 = 0.25\%$
or $1/4 \%$

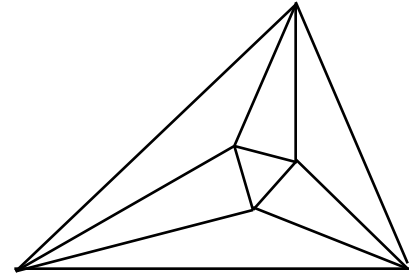
12 cm 3. $\frac{7}{8} = \frac{3.5}{x}$ $x = 4$, $\frac{7}{9} = \frac{3.5}{y}$ $y = 4.5$, $P = 3.5 + 4 + 4.5 = 12$
or $7+8+9=24$ so the ratio of short side to P is 7:24 $\frac{7}{24} = \frac{3.5}{P}$ $P = 12$

5:37 PM 4. $640 - 124 = 516$ miles
 $516 / 70 = 7.37 = 7$ hours 22 minutes
 $10:15 + 7:22 = 17:37 - 12 = 5:37$ PM

15.9 feet 5. $50 = 2\pi r = \pi d$, $d = 50 / \pi = 15.915..$

Meet 3 - Event C 2000-2001

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



_____ 1. Solve for x : $3.2(x - 7) = 14.8$.

_____ 2. Solve for x : $\frac{x}{a+b} = \frac{c}{c-b}$

_____ 3. When Harold traveled to a foreign country, he was told that 1 ace = 3 bakits, and 1 mont = 6 bakits, and 4 monts = 1 coin. If he had 3 coins, how many aces were the 3 coins worth?

a $d =$ _____ 4. If Maria travels at 55 mph when she drives to Michael's house
a) Write an equation relating time in hours, t , to how far she is from her house, d .
b $D =$ _____ b) If Michael lives 20 miles from Maria, write an equation relating the time Maria has been driving, t , to how far she is from Michael's house, D .

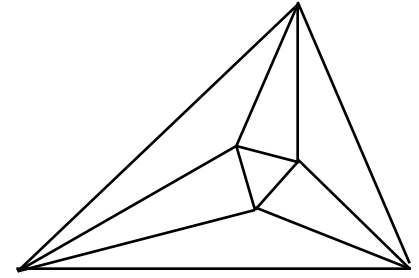
_____ 5. Hosea lives 40 miles west of town and Miguel lives 5 miles east of town. If it took Hosea 90 minutes to drive from his house to Miguel's house, what was his average speed?

Name _____ School _____

Meet 3- Event C 1999-2000

Answers

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



$$\begin{array}{l} \underline{11.625} \quad 1. \quad 3.2x - 22.4 = 14.8 \\ \text{or } 11 \frac{5}{8} \quad \quad \quad 3.2x = 37.2 \\ \quad \quad \quad \quad \quad \quad x = 11.625 \end{array}$$

$$\begin{array}{l} x = \frac{c(a+b)}{c-b} \quad 2. \quad (c-b)x = c(a+b), \quad x = \frac{c(a+b)}{c-b} \\ \text{or } x = \frac{ca+cb}{c-b} \end{array}$$

$$\begin{array}{l} \underline{24} \quad 3. \quad 3 \text{ coins} = 3(4) = 12 \text{ monts}, 12 \text{ monts} = 6(12) = 72 \text{ bakits} \\ \quad \quad \quad \frac{1 \text{ ace}}{3 \text{ bakits}} = \frac{x \text{ aces}}{72 \text{ bakits}}, x = 24 \text{ aces} \\ \quad \quad \quad \text{or } 1 \text{ mont} = 2 \text{ aces, so } 12 \text{ mont} = 24 \text{ aces} \end{array}$$

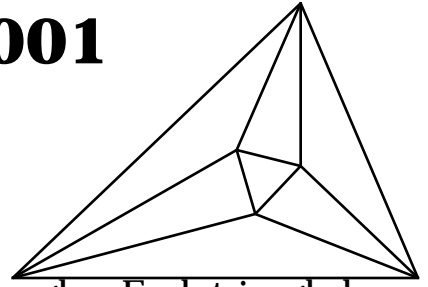
$$\underline{a \quad d=55t} \quad 4. \quad d=55 \text{ miles/hour} \times t \text{ hours}$$

$$\underline{b \quad D=20-55t} \quad D=20 \text{ miles} - 55t$$

$$\begin{array}{l} \underline{30 \text{ mph}} \quad 5. \quad \text{Total distance} = 40 + 5 = 45 \text{ miles} \\ \text{or } 0.5 \text{ mi/min} \quad \text{Total time} = 90/60 = 1.5 \text{ hours} \\ \quad \quad \quad 45 \text{ miles} / 1.5 \text{ hours} = 30 \text{ mph} \end{array}$$

Meet 3 - Team Event 2000-2001

Questions are worth 4 points each.
Remember your units.



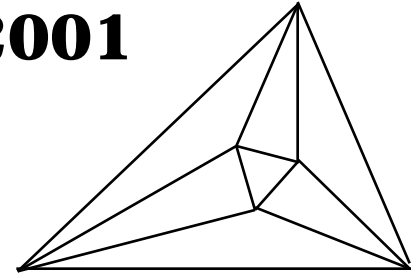
- _____ 1. A regular hexagon is made of six equilateral triangles. Each triangle has a perimeter of 9 inches. What is the perimeter of the hexagon?
- _____ 2. Nancy drove from her house to her grandmother's house. When she stopped for gas after driving for 50 minutes, she was $\frac{2}{3}$ of the way. If she drove at 60 miles per hour, how far was grandmother's house from Nancy's house?
- _____ 3. A quarter of a solid circle, $\frac{1}{4}\bigcirc$, has a perimeter of 20.566 cm. Half of the same circle, $\frac{1}{2}\bigcirc$, has a perimeter of 33.132 cm. What is the radius of the circle?
- _____ 4. A map has a scale of 50 miles:1 inch. What distance does 3.2 inches represent?
- _____ 5. A map has a scale of 1 mile: $1\frac{1}{4}$ inches. What distance does 4 inches represent?
- _____ 6. What is 5% of 32% of 25?
- _____ 7. Solve for x : $1.7x + 2 = 3.2x - 4.5$
- _____ 8. Solve for x : $\left|\frac{x}{2} - 1\right| = 6$
- _____ 9. Write the equation using absolute value signs representing x is 4 units away from 3.
- _____ 10. Cassandra drove 65 mph for 75 minutes, stopped for lunch for 35 minutes, and then drove for 2 hours at 70 mph. What was the distance she traveled?

School _____

Meet 3 - Team Event 2000-2001

Answers

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



18 inches 1. $9/3=3$ inches on one side of the triangle. Six triangle sides form the perimeter of the hexagon, so $P=6 \times 3 = 18$ inches

75 miles 2. $50 \text{ min} = 5/6 \text{ hours}$, $5/6 \text{ hr} \times 60 \text{ mph} = 50 \text{ miles}$ which is $2/3$ of the way.
 $50 \times 3/2 = 75 \text{ miles}$

4 cm 3. $33.132 - 20.566 = 12.566 = \text{arc length of } 1/4 \text{ circle}$. $20.566 - 12.566 = 8 \text{ cm}$ diameter. Therefore radius $= 0.5(8) = 4 \text{ cm}$

160 miles 4. $3.2(50) = 160 \text{ miles}$

3.2 miles 5. $\frac{1 \text{ mile}}{1.25 \text{ in}} = \frac{x}{4 \text{ in}}$, $x = \frac{4}{1.25} = 3.2$

0.4 6. $0.05(0.32)(25) = 0.4$

$4 \frac{1}{3}$ 7. $2 + 4.5 = 3.2x - 1.7x$, $6.5 = 1.5x$, $x = 6.5 / 1.5 = 4.\bar{3}$
or $4.\bar{3}$

$$\frac{x}{2} - 1 = 6 \qquad \frac{x}{2} - 1 = -6$$

-10 and 14 8. $\frac{x}{2} = 7$ or $\frac{x}{2} = -5$
 $x = 14$ $x = -10$

$|x - 3| = 4$ 9.

221.25 mi 10. $75 \text{ min} = 1.25 \text{ hours}$, $65 \times 1.25 + 70 \times 2 = 221.25 \text{ miles}$