SUMMER

MATH PRACTICE

for students entering <u>Geometry</u>

Benton Middle School

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Manassas, VA 20112

Solve each equation.

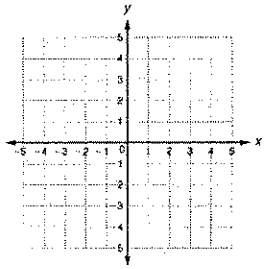
1. $-x-9=x+3$	2. $7r-4+2r=12+7r$
3. $-5-4(n+3)=-19-3n$	4. $-3(3-k)=3(k+3)$

Solve for the indicated variable.

5. $d=rt$ for r	6. $ax+by+c=0$ for y
7. $A=\frac{e+f}{2}$ for e	8. $3k+7n=p$ for k

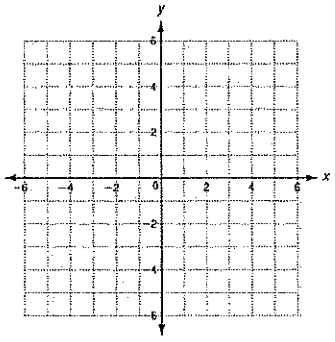
Use intercepts to graph the line described by the equation.

9. $4x+3y=-12$

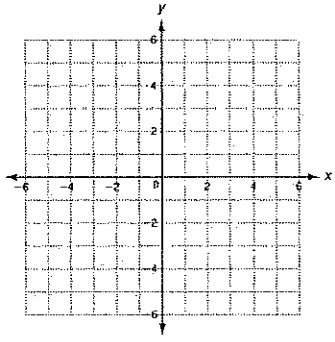


Write each equation in slope-intercept form. Then graph the line described by the equation.

20. $y + x = 3$



21. $5x - 2y = 10$



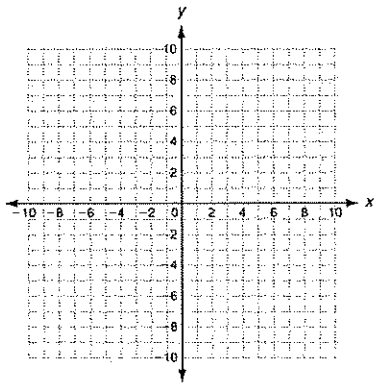
Write an equation in point-slope form for the line with the given slope that contains the given point.

22. slope = 4; (5, 6)

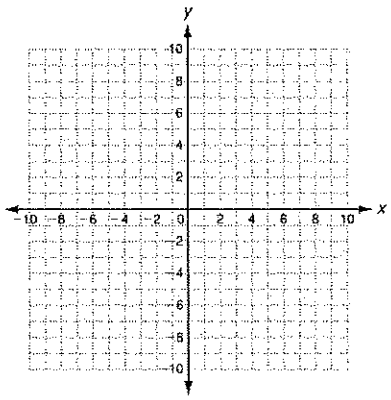
23. slope = –3; (7, –2)

Graph the line described by each equation.

24. $y - 3 = \frac{2}{3}(x + 1)$

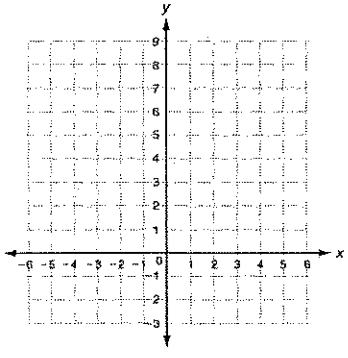


25. $y + 4 = -3(x - 4)$

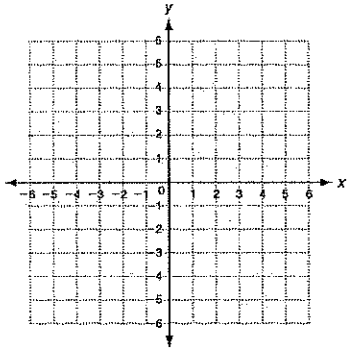


Solve each system by graphing.

26. $\begin{cases} y = 2x + 3 \\ y = -x + 9 \end{cases}$ Solution: _____



27. $\begin{cases} y = -3x + 4 \\ y = 2x + 4 \end{cases}$ Solution: _____



Multiply.

36. $-4x\left(x^2-5x+7\right)$	37. $(y-7)(y-4)$
38. $(x-4)^2$	39. $(5x+2)^2$

Factor each polynomial. (GCF)

40. $12c^3-5c$	41. $6x^2-18x+6$

Factor each polynomial.

42. $x^2+11x+28$	43. x^2-8x+7
44. $x^2-2x-24$	45. $x^2+4x-21$
46. $1-9x^2$	47. $64x^2-1$

Solve using the Quadratic Formula.

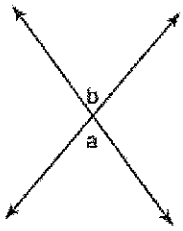
58. $x^2+7x-6=0$

59. $2x^2-x-11=0$

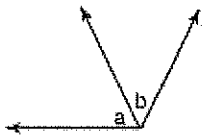
Name the relationship(s): complementary, supplementary, vertical, or adjacent.

60.

61.



62.



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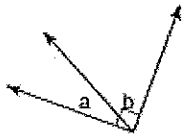
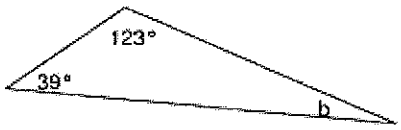


Find the measure of angle *b*.

64.



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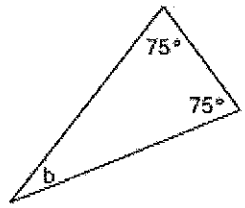
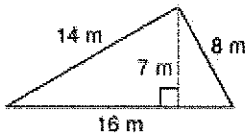


Find the perimeter of each figure.

66.



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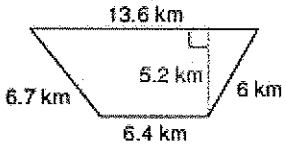
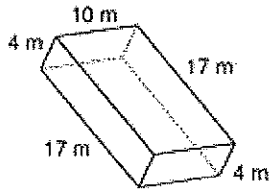


Find the volume of each figure – see formulas below.

78.



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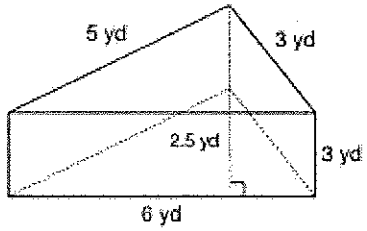

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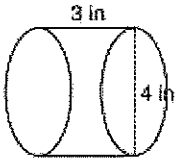

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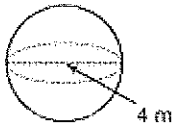

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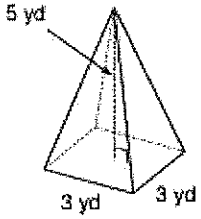

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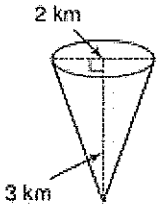

Volume Formulas		
Prism	**Pyramid**	**Cylinder**
$V = Bh$	$V = \frac{1}{3}Bh$	$V = \pi r^2 h$
Cube	**Cone**	**Sphere**
$V = s^3$	$V = \frac{1}{3}\pi r^2 h$	$V = \frac{4}{3}\pi r^3$