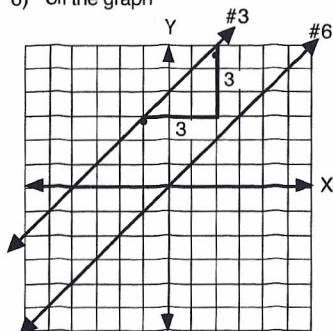


9C

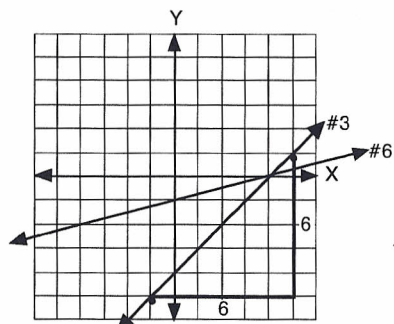
- 1) on the graph
- 2) slope =  $\frac{3}{3} = 1$
- 3) y-intercept = 4
- 4)  $Y = X + 4$ ,  $X - Y = -4$
- 5) A ( $Y = -X - 1$ ), C ( $Y = -X$ )
- 6) on the graph



- 7) 2
- 8)  $Y = -3X - 1$ , so slope is -3
- 9)  $Y - 1/3 X = 2$ ,  $X - 3Y = -6$
- 10)  $2Y = -3X + 1$ ,  $Y = -3/2 X + 1/2$
- 11)  $(3 - 11)^2 \times 2 \div 16 - 7 = 3Y - 4Y + 9$   
 $(-8)^2 \times 2 \div 16 - 7 = -Y + 9$   
 $64 \times 2 \div 16 - 7 - 9 = -Y$   
 $128 \div 16 - 16 = -Y$ ,  $8 - 16 = -Y$ ,  $8 = Y$
- 12)  $(3 - 5)^2 + |6 - 4| - X = 3X$   
 $(-2)^2 + |2| - X = 3X$   
 $4 + 2 = 4X$ ,  $6 = 4X$ ,  $1 1/2 = X$
- 13)  $3(A - 4) - 5(2A - 6) = 21$   
 $3A - 12 - 10A + 30 = 21$   
 $-7A + 18 = 21$ ,  $-7A = 3$ ,  $A = -3/7$
- 14)  $\frac{5}{(15)} \frac{4}{8} + \frac{3}{(15)} \frac{4}{5} A = \frac{3}{(15)} \frac{11}{8}$   
 $20 + 12A = 33$ ,  $A = 1 1/2$
- 15)  $-6^2 - (-6)^2 = -36 - 36 = -72$
- 16)  $5 + 5 - (-7) = 10 + 7 = 17$
- 17)  $-[-(-7)] = -[7] = -7$
- 18)  $(-8)^2 = 64$
- 19)  $25\% = .25$ ,  $.25 \times 76.98 = \$19.25$
- 20)  $45\% = .45$ ,  $.45 \times 600 = 270$  people

9D

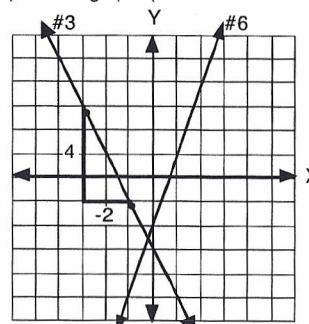
- 1) on the graph
- 2) slope =  $\frac{6}{6} = 1$
- 3) y-intercept = -4
- 4)  $Y = X - 4$ ,  $X - Y = 4$
- 5) C ( $Y = 1/4 X + 2$ )
- 6) on the graph



- 7)  $Y = 1/4 X - 1$
- 8)  $Y = -2X + 3$ , slope = -2
- 9)  $2X - Y = -5$
- 10)  $4Y = -2X + 8$ ,  $Y = -1/2 X + 2$
- 11)  $|-1 - 1 - 1 - 1|^2 = (-4)^2 + B(-1) \div 1$   
 $16 = 1 - B \div 1$ ,  $15 = -B$ ,  $-15 = B$
- 12)  $(3 + 5)^2 + |8 - 11| + Z = 4(Z - 2)$   
 $8^2 + |-3| + Z = 4Z - 8$   
 $64 + 3 + Z = 4Z - 8$ ,  $75 = 3Z$ ,  $25 = Z$
- 13)  $5(B - 6) + 4(2B + 7) = 102$   
 $5B - 30 + 8B + 28 = 102$   
 $13B - 2 = 102$ ,  $13B = 104$ ,  $B = 8$
- 14)  $55Q - 30Q = 125$   
 $25Q = 125$ ,  $Q = 5$
- 15)  $-[-(-8)] = -[-8] = 8$
- 16)  $-9^2 = -81$
- 17)  $-(-4) = 4$
- 18)  $3^2 + (-3)^2 = 9 + 9 = 18$
- 19)  $76\% = .76$ ,  $.76 \times 200 = \$152$
- 20)  $\frac{WF}{8} \times 8 = \frac{2}{8}$  check  
 $WF = \frac{2}{8} = \frac{1}{4}$   $\frac{1}{4} \times \frac{2}{1} = \frac{2}{4} = \frac{1}{2}$

9E

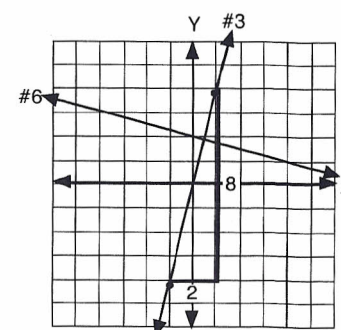
- 1) on the graph
- 2) slope =  $\frac{4}{-2} = -2$
- 3) y-intercept = -3
- 4)  $Y = -2X - 3$ ,  $2X + Y = -3$
- 5) B ( $Y = 3X$ ), C
- 6) on the graph (line will have a slope of 3)



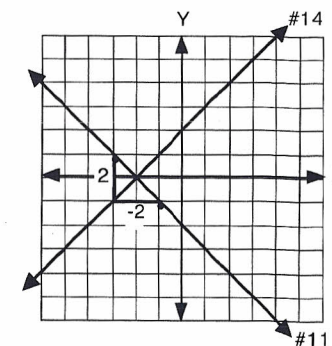
- 7)  $Y = 3X - 2$
- 8) -1/5
- 9)  $3X + Y = -6$
- 10)  $Y + 2X = -1$ ,  $Y = -2X - 1$
- 11)  $24Y - 108Y + 96 = 48 - 12Y$   
 $-84Y + 96 - 48 = -12Y$   
 $48 = 72Y$ ,  $2/3 = Y$
- 12)  $\{-[-(-9)] + 7^2\} \div 5 \div 2 = Q + 4$   
 $\{-9 + 49\} \div 5 \div 2 = Q + 4$   
 $40 \div 5 \div 2 = Q + 4$ ,  $8 \div 2 - 4 = Q$ ,  $0 = Q$
- 13)  $8(A + 3 - 9) - 4(2A + 5) = 2A + 4$   
 $8A + 24 - 72 - 8A - 20 = 2A + 4$   
 $-68 - 4 = 2A$ ,  $-72 = 2A$ ,  $-36 = A$
- 14)  $(6 + 6)^2 + |100 - 1| - 14^2 = 5 \times 9 + B$   
 $12^2 + 99 - 196 = 45 + B$   
 $243 - 196 - 45 = B$ ,  $2 = B$
- 15)  $-[-(6 - 9 + 3 - 5)] = -[-(-5)] = -5$
- 16)  $-5^3 = -125$
- 17)  $\frac{WF}{10} \times 10 = \frac{3}{10}$  check  
 $WF = \frac{3}{10}$   $\frac{3}{10} \times \frac{10}{1} = 3$
- 18)  $8.75 \div .25 = 35$  packs
- 19)  $6\% = .06$ ,  $.06 \times 115 = \$6.90$
- 20)  $-N^2 - N^2$

10A

- 1) on the graph
- 2) slope =  $\frac{8}{2} = 4$
- 3) y-intercept = 0
- 4)  $Y = 4X$
- 5) B
- 6) on the graph
- 7)  $Y = -1/4 X + 2$
- 8)  $Y + 1/4 X = 2$ ,  $X + 4Y = 8$

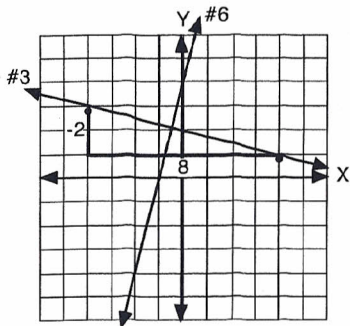


- 9) on the graph
- 10) slope =  $-\frac{2}{2} = -1$
- 11) y-intercept = -2
- 12)  $Y = -X - 2$
- 13) A ( $Y = X - 2$ )
- 14) on the graph
- 15)  $Y = X + 2$
- 16)  $X - Y = -2$

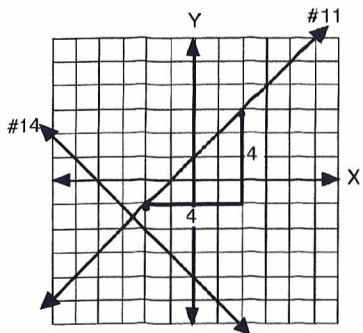


10B

- 1) on the graph
- 2) slope =  $\frac{-2}{8} = -\frac{1}{4}$
- 3) y-intercept = 2
- 4)  $Y = -1/4X + 2$
- 5) A ( $Y = 4X - 5$ )
- 6) on the graph
- 7)  $Y = 4X + 4$
- 8)  $4X - Y = -4$

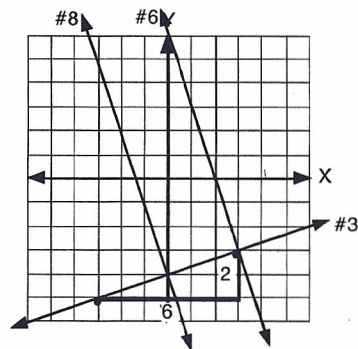


- 9) on the graph
- 10) slope =  $\frac{4}{4} = 1$
- 11) y-intercept = 1
- 12)  $Y = X + 1$
- 13) A
- 14) on the graph
- 15)  $Y = -X - 4$
- 16)  $X + Y = -4$



10C

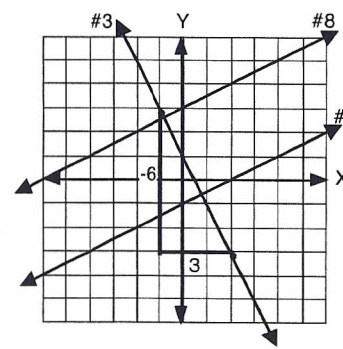
- 1) on the graph
- 2) slope =  $\frac{2}{6} = \frac{1}{3}$
- 3) y-intercept = -4
- 4)  $Y = 1/3X - 4$ ,  $X - 3Y = 12$
- 5) B, C ( $Y = -3X - 1$ )
- 6) on the graph
- 7)  $Y = -3X + 6$ ,  $3X + Y = 6$
- 8) on the graph



- 9)  $Y = -3X - 4$ ,  $3X + Y = -4$
- 10) slopes are the same, so lines are parallel
- 11)  $6X - X + 3 = 4X + 7$   
 $5X + 3 = 4X + 7$   
 $X = 4$
- 12)  $-2X - X + 12 = X - 12$   
 $-3X - X = -12 - 12$   
 $-4X = -24$ ,  $X = 6$
- 13)  $|- (3 + 7)| - 4^2 + (-4)^2 = 2R$   
 $10 - 16 + 16 = 2R$   
 $10 = 2R$ ,  $5 = R$
- 14)  $\frac{9}{(18)} \frac{-7}{2} Y + \frac{2}{(18)} \frac{2}{9} = \frac{6}{(18)} \frac{-4}{8}$   
 $-63Y + 4 = -24$ ,  $Y = 4/9$
- 15)  $100\% - 60\% = 40\%$
- 16)  $40\% \text{ of } \$12,900 = .40 \times 12,900 = \$5,160$
- 17)  $15.3\% = .153$ ,  $.153 \times 5,160 = \$789.48$
- 18)  $.25 \div 2 = .125$  or  $12 \frac{1}{2} \text{¢}$
- 19)  $8 \times .125 = \$1.00$  (or  $4 \times .25 = \$1.00$ )
- 20)  $T = 5W + 3$ ,  $T = \text{total and } W = \text{weeks}$   
(different letters may be used)

10D

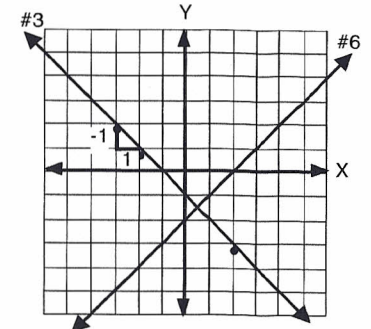
- 1) on the graph
- 2) slope =  $\frac{-6}{3} = -2$
- 3) y-intercept = 1
- 4)  $Y = -2X + 1$ ,  $2X + Y = 1$
- 5) A
- 6) on the graph
- 7)  $Y = 1/2X - 1$ ,  $X - 2Y = 2$
- 8) on the graph



- 9)  $Y = 1/2X + 3$ ,  $X - 2Y = -6$
- 10) slopes are the same, so lines are parallel
- 11)  $2X + 2 - X + 2X = 3X - 3 + 10 - X$   
 $3X + 2 = 2X + 7$   
 $X + 2 = 7$ ,  $X = 5$
- 12)  $3Y - 1 + 2Y - 1 - 4Y = 2Y + 3 + Y + 1$   
 $Y - 2 = 3Y + 4$   
 $-6 = 2Y$ ,  $-3 = Y$
- 13)  $-(6 + 7)^2 + (10 + 5)^2 = 5M$   
 $-169 + 225 = 5M$ ,  $56 = 5M$ ,  $11 \frac{1}{5} = M$
- 14)  $\frac{20}{(60)} \frac{-5}{2} = \frac{15}{(60)} \frac{-9}{4} + \frac{12}{(60)} \frac{6}{5} A$   
 $-100 = -135 + 72A$ ,  $35 = 72A$ ,  $35/72 = A$
- 15)  $100\% - 55\% = 45\%$
- 16)  $45\% \text{ of } \$9,645 = .45 \times 9,645 = \$4,340.25$
- 17)  $15.3\% = .153$ ,  $.153 \times 4,340.25 = \$664.06$   
(rounded)
- 18)  $2.50 \div .25 = 10$ ,  $10 \times 2 = 20 \text{ bits}$
- 19)  $100 \div 2 = 50$ ,  $50 \times .25 = \$12.50$
- 20)  $L = W + 5$ ,  $L = \text{length and } W = \text{weeks}$   
(different letters may be used)

10E

- 1) on the graph
- 2) slope =  $\frac{-1}{1} = -1$
- 3) y-intercept = -1
- 4)  $Y = -X - 1$ ,  $X + Y = -1$
- 5) C
- 6) on the graph
- 7)  $Y = X - 2$ ,  $X - Y = 2$



- 8)  $5Y - 3 - 2Y + 4 + 3Y = 4Y + 9 + 4Y$   
 $6Y + 1 = 8Y + 9$ ,  $-8 = 2Y$ ,  $-4 = Y$
- 9)  $-M - 4 - 2M + 20 = M + 7 - 5M + 11$   
 $-3M + 16 = -4M + 18$ ,  $-2 = -M$ ,  $2 = M$
- 10)  $|-3 - 4 - 5 + 2| + W = 3W$   
 $|-10| = 2W$ ,  $10 = 2W$ ,  $5 = W$
- 11)  $\frac{9}{(36)} \frac{13}{4} B = \frac{4}{(36)} \frac{29}{9} + \frac{3}{(36)} \frac{5}{12}$   
 $117B = 116 + 15$ ,  
 $117B = 131$ ,  $B = 1 \frac{14}{117}$
- 12)  $100\% - 48\% = 52\%$
- 13)  $52\% \text{ of } \$25,813 = .52 \times 25,813 = \$13,422.76$
- 14)  $15.3\% = .153$ ,  
 $.153 \times 13,422.76 = \$2,053.68$  (rounded)
- 15)  $20 \times 12 = 240 \text{ pence}$
- 16)  $5 \times 20 = 100 \text{ shillings}$
- 17)  $C = -20W + 1000$ ,  
 $C = \text{cash and } W = \text{weeks}$
- 18)  $\sqrt{100} = 10$  ( $10 \times 10 = 100$ )
- 19)  $\sqrt{36} = 6$  ( $6 \times 6 = 36$ )
- 20)  $\sqrt{144} = 12$  ( $12 \times 12 = 144$ )