Name: _____ Class: _____ Date: _____ ID: A

PC 11 Final Exam Review

S= potential short answer questions

Multiple Choice

Identify the choice that best completes the statement or answers the question.

____ 1. Which of the following numbers occurs in the sequence −12, −8, −4, 0, 4, . . .?
A 6 C 24
B −3 D 15

____ 2. The common difference in the arithmetic sequence 2, −6, −14, −22, . . . is
A −8 C −16
B −3 D 8

____ 3. What is the 18th term of the sequence −22, −21.2, −20.4, −19.6, −18.8, ...?
A −6.8 C −8.4
B 0.8 D −35.6

____ 4. The sum of the series (−5) + (−7) + (−9) + ··· + (−19) is
A −96 C −192
B −304 D 26

____ 5. The sum of an arithmetic series where $t_1 = \frac{1}{2}$, $d = 3$, and $n = 19$ is
A 551 C $\frac{1045}{2}$
B $\frac{165}{2}$ D 1045

____ 6. For the arithmetic series (107) + (130) + (153) + ··· + (981), the values of t_1, d, and n are
A $t_1 = 107, d = 23, n = 39$ C $t_1 = -107, d = 23, n = 38$
B $t_1 = 107, d = -23, n = 39$ D $t_1 = -107, d = -23, n = 38$

____ 7. The population of a community was 82 000 at the beginning of 2000. Assuming a rate of growth of 1.6% per year since 2000, what will the population be at the beginning of 2025?
A 123 894 C 121 943
B 2 082 800 D 120 023

____ 8. The eighth term in the sequence 3 515 625, 703 125, 140 625, 28 125, ... is
A 9 C 45
B $\frac{1}{9}$ D 5

____ 9. How many terms are in the sequence 2, 8, 32, 128, 512, ..., 2 097 152?
A 9 C 10
B 12 D 11

____ 10. The sum of a geometric series where $t_1 = \frac{1}{3}$, $r = 2$, and $n = 3$ is approximately
A 2.3 C 2.7
B 1.3 D 1.2

____ 11. The sum of the geometric series 14 + 70 + 350 + ··· + 43 750 is
A 8747 C 54 688
B 10 938 D 54 684

____ 12. What is the value of S_9 for the series 8 − 24 + 72 − 216 + ··· ?
A 39 366 C 52 491
B −13 122 D 39 368

____ 13. Determine the sum of the infinite geometric series $11 + \frac{11}{3} + \frac{11}{9} + \frac{11}{27} + ...$
A 33 C $\frac{33}{2}$
B $\frac{33}{4}$ D $\frac{440}{27}$

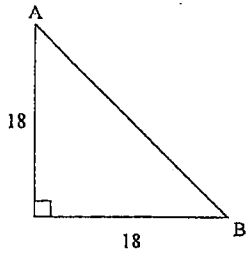
____ 14. What is the sum of the infinite geometric series
$15 + 15(8/9) + 15(8/9)^2 + 15(8/9)^3 + ···$?
A −120 C $\frac{135}{8}$
B $\frac{135}{17}$ D 135

____ 15. The sum of an infinite geometric series is $\frac{20}{3}$ and its common ratio is $\frac{1}{4}$. What is the first term of the series?
A $\frac{1}{4}$ C $\frac{80}{3}$
B 5 D $\frac{5}{3}$

____ 16. What is the reference angle for 200° in standard position?
A 100° C 20°
B 70° D 110°

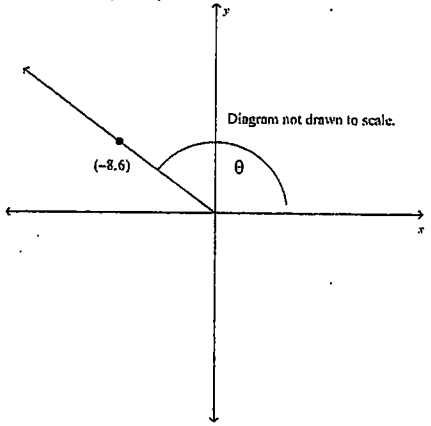
____ 17. What are the three other angles in standard position that have a reference angle of 54°?
A 99°, 144°, 234° C 144°, 234°, 324°
B 108°, 162°, 216° D 126°, 234°, 306°

____ 18. What is the exact cosine of ∠A?



A $\sqrt{2}$
B 1
C 18
D $\frac{1}{\sqrt{2}}$

____ 19. The coordinates of a point P on the terminal arm of an angle are shown. What are the exact trigonometric ratios for $\sin\theta$, $\cos\theta$, and $\tan\theta$?



A $\sin A = -\frac{4}{5}$, $\cos A = \frac{3}{5}$, $\tan A = -\frac{4}{3}$
B $\sin A = \frac{5}{3}$, $\cos A = -\frac{5}{4}$, $\tan A = -\frac{3}{4}$
C $\sin A = \frac{3}{5}$, $\cos A = -\frac{4}{5}$, $\tan A = -\frac{3}{4}$
D $\sin A = \frac{4}{5}$, $\cos A = -\frac{3}{5}$, $\tan A = -\frac{3}{4}$

____ 20. Marco is 450 m due east of the centre of the park. His friend Ray is 450 m due south of the centre of the park. Which is the correct expression for the exact distance between the two boys?

A $225\sqrt{2}$ m
B $\frac{225}{\sqrt{2}}$ m
C $450\sqrt{2}$ m
D $\frac{450}{\sqrt{2}}$ m

____ 21. An angle is in standard position such that $\cos\theta = \frac{1}{9}$. What are the possible values of θ, to the nearest degree, if $0° \le \theta \le 360°$?

A 6° and 174°
B 6° and 276°
C 84° and 264°
D 84° and 276°

____ 22. Solve to the nearest tenth of a unit for the unknown side in the ratio $\frac{a}{\sin 30°} = \frac{12}{\sin 115°}$.

A 24
B 21.8
C 6.6
D 24.6

____ 23. Determine the length of x, to the nearest tenth of a centimetre.

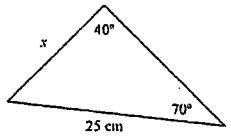


Diagram not drawn to scale.

A 26.6
B 36.5
C 11.2
D 17.1

____ 24. Which strategy would be best to use to solve for x?

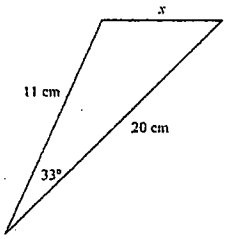


Diagram not drawn to scale.

A primary trigonometric ratios
B sine law
C cosine law
D none of the above

____ 25. What is the length of x, to the nearest tenth of a metre?

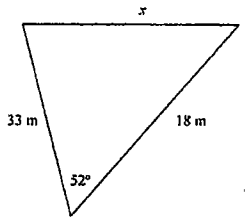


Diagram not drawn to scale.

A 27.7 m
B 21.8 m
C 26.1 m
D 37.6 m

____ 26. If $\angle Q = 31°$, $r = 20$ cm, and $p = 23$ cm, what is the length of q, to the nearest centimetre?

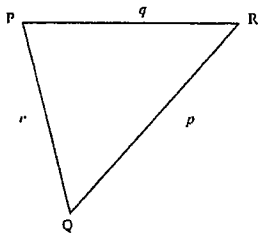


Diagram not drawn to scale.

A 21 cm
B 30 cm
C 12 cm
D 11 cm

____ 27. Solve the following triangle, rounding side lengths to the nearest tenth of a unit and angle measures to the nearest degree.

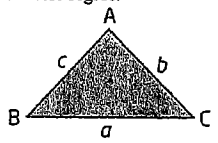
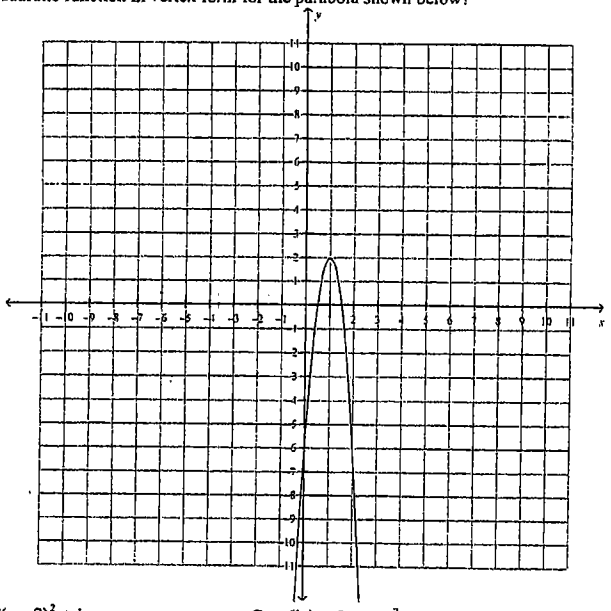


Diagram not drawn to scale.

$\angle A = 152°, b = 19, a = 23.5$

A $\angle B = 22°, \angle C = 6°, c = 5.0$
B $\angle B = 158°, \angle C = 84°, c = 5.0$
C $\angle B = 68°, \angle C = 174°, c = 28.7$
D $\angle B = 35°, \angle C = 7°, c = 28.2$

____ 28. What is the quadratic function in vertex form for the parabola shown below?



A $f(x) = -8(x-2)^2 + 1$
B $f(x) = -8(x-1)^2 + 2$
C $f(x) = 8(x+1)^2 + 1$
D $f(x) = 8(x-1)^2 - 2$

____ 29. What are the domain and range of $y = 7(x-1)^2 - 9$?

A Domain: $\{x|x \le -1, x \in R\}$
Range: $\{y|y \in R\}$
B Domain: $\{x|x \in R\}$
Range: $\{y|y \ge -9, y \in R\}$
C Domain: $\{x|x \ge 7, x \in R\}$
Range: $\{y|y \in R\}$
D Domain: $\{x|x \in R\}$
Range: $\{y|y \le -1, y \in R\}$

____ 30. What information can be determined from the quadratic function $f(x) = \frac{2}{3}(x+2)^2 - 9$?

A the vertex is at $(-2, -9)$ and the graph opens upward
B the vertex is at $(-9, -2)$ and the graph opens downward
C the vertex is at $(-2, -9)$ and the graph opens downward
D the vertex is at $(-9, -2)$ and the graph opens upward

____ 31. What are the coordinates of the vertex of the quadratic function $y = 4x^2 + 8x - 2$?

A $(-6, -1)$
B $(8, -2)$
C $(-1, -6)$
D $(8, -6)$

____ 32. What is the function $y = 2(x-4)^2 - 2$ written in standard form?

A $y = 2x^2 - 8x + 30$
B $y = 2x^2 - 8x + 34$
C $y = 2x^2 - 16x + 34$
D $y = 2x^2 - 16x + 30$

____ 33. What is the function $y = (x+2)^2$ written in standard form?

A $y = x^2 + 4x + 4$
B $y = x^2 - 4x + 4$
C $y = x^2 - 2^2$
D $y = x^2 + 4$

____ 34. What is the equation of the quadratic function $y = x^2 - 26x + 41$ in vertex form?

A $y = -(x+13)^2 - 210$
B $y = -(x-13)^2 - 210$
C $y = (x+13)^2 - 128$
D $y = (x-13)^2 - 128$

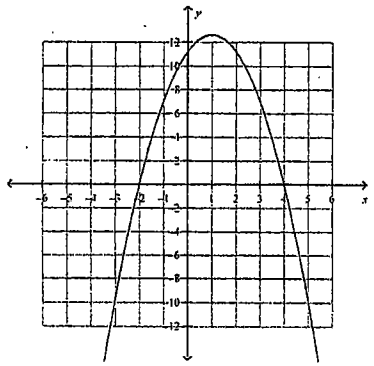
____ 35. Which quadratic function in standard form represents $y = 3(x-1)^2 - 25$?

A $y = 3x^2 - 3x - 11$
B $y = 3x^2 - 6x - 22$
C $y = 3x^2 + 6x - 22$
D $y = 3x^2 - 6x - 11$

____ 36. What is the axis of symmetry for the quadratic function $y = (-1/3)x^2 - (1/2)x - 1$?

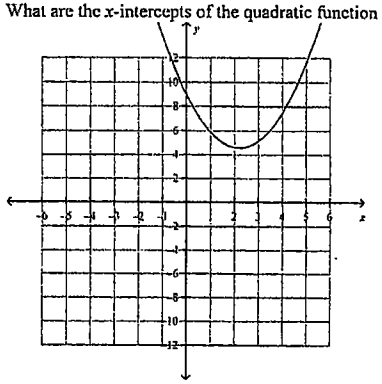
A $x = -\frac{1}{48}$
C $x = -\frac{13}{16}$
B $x = -\frac{117}{4}$
D $x = -\frac{3}{4}$

____ 37. What are the x-intercepts of the quadratic function graphed here?



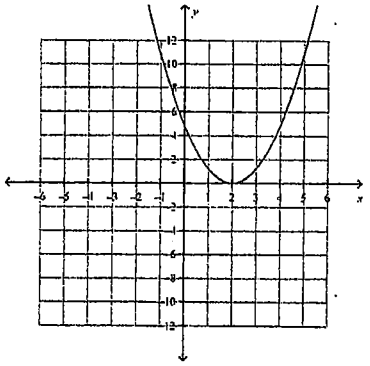
A 2 and –4
C 11.2
B –2 and 4
D 12.6

____ 38. What are the x-intercepts of the quadratic function graphed here?



A 4.6
C –2.2
B there are none
D 9.0

____ 39. What is the x-intercept of the quadratic function graphed here?



A 0
C 4.8
B –2
D 2

____ 40. Factor $-4x^2 + 68x - 120$ completely.

A $-4(x-2)(x-15)$
C $-4(x+2)(x-15)$
B $-4(x+2)(x+15)$
D $-4(x-2)(x+15)$

Name: _____ ID: A

S 41. Solve $-8x^2 + 120x + 432 = 0$.

A $x = 18$ and $x = -3$
B $x = -18$ and $x = 3$
C $x = \frac{9}{4}$ and $x = -\frac{3}{8}$
D $x = -144$ and $x = 24$

___ 42. The value of k that makes the expression $x^2 + 72x + k$ a perfect square trinomial is

A 1296
B 144
C 0
D 72

___ 43. Which is the vertex form of $2x^2 - 12x - 10 = 0$? Round coefficients to the nearest hundredth if necessary.

A $2(x+3)^2 - 28 = 0$
B $2(x-28)^2 - 3 = 0$
C $2(x+3)^2 + 28 = 0$
D $2(x-3)^2 - 28 = 0$

S 44. Solve $(x+1)^2 = 43$.

A $1 + \sqrt{43}$ and $1 - \sqrt{43}$
B $-1 + \sqrt{43}$ and $-1 - \sqrt{43}$
C $2\sqrt{11}$
D $\sqrt{42}$

S 45. The roots, to the nearest hundredth, of $y = -\frac{1}{2}x^2 - 2x + \frac{7}{10}$ are

A -8.65 and 0.65
B 4.32 and -0.32
C -2.16 and 0.16
D -4.32 and 0.32

you may use the quadratic formula for these

S 46. The roots, to the nearest hundredth, of $y = 7.2x^2 - 33.1x + 18.3$ are

A 7.91 and 1.29
B 1.98 and 0.32
C 3.95 and 0.64
D -3.95 and -0.64

S 47. The x-intercepts, to the nearest hundredth, of $y = -33.8x^2 + 6.8x + 13.4$ are

A -0.27 and 0.37
B -0.54 and 0.74
C -1.07 and 1.48
D -0.64 and 0.64

48. For a science experiment, a projectile is launched. Its path is given by $h(d) = -4.0d^2 + 61.3d + 20.0$, where h is the height of the projectile above the ground and d is the horizontal distance of the projectile from the launch pad, both in metres. How far away from the launch pad is the projectile when it begins to fall, to the nearest tenth of a metre?

OMIT

A 2558 m
B 7.7 m
C 0.3 m
D 15.7 m

Name: _____ ID: A

___ 49. Simplify $3\sqrt{175} + 6\sqrt{63}$.

A $9 + \sqrt{238}$
B $33\sqrt{7}$
C $9 + 2\sqrt{2}$
D 114

___ 50. Simplify $6\sqrt{80} - 2\sqrt{20}$.

A $4 + \sqrt{2}$
B $4 + 2\sqrt{15}$
C -36
D $20\sqrt{5}$

___ 51. Simplify the expression $\frac{5}{6}(\sqrt[3]{1080}) + \frac{\sqrt[3]{135}}{8}$

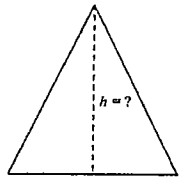
A $\frac{43}{8}(\sqrt[3]{5})$
B $\frac{23}{24}(\sqrt[3]{6})$
C $\frac{5}{48}(\sqrt[3]{5})$
D $\frac{5}{48} + 270\sqrt{2}$

___ 52. Express $\frac{2\sqrt{21} - 3\sqrt{7}}{\sqrt{7}} + \frac{4\sqrt{3} - 8}{\sqrt{4}}$ in simplest form.

A $6\sqrt{3} - 5$
B $6\sqrt{21} - 14\sqrt{7}$
C $4\sqrt{3} - 7$
D $2\sqrt{21} - 3\sqrt{7} + 4\sqrt{3} - 2$

53. An equilateral triangle has an area of 43.3 cm². What is the height of the triangle, to the nearest tenth of a centimetre?

OMIT



A 8.3 cm
B 3.5 cm
C 10.0 cm
D 8.7 cm

____ 54. A radical expression is being simplified. In which step of the process was an error made?

$$\frac{\sqrt{b}+6\sqrt{s}}{\sqrt{b}} = \frac{\sqrt{b}+6\sqrt{s}}{\sqrt{b}}\left(\frac{\sqrt{b}}{\sqrt{b}}\right)$$

$$= \frac{\sqrt{b}(\sqrt{b}+6\sqrt{s})}{(\sqrt{b})(\sqrt{b})} \quad \text{Step A}$$

$$= \frac{\sqrt{b}(\sqrt{b})+\sqrt{b}(6\sqrt{s})}{2b} \quad \text{Step B}$$

$$= \frac{b+6\sqrt{bs}}{2b} \quad \text{Step C}$$

$$= \frac{1}{2}+3\frac{\sqrt{bs}}{b} \quad \text{Step D}$$

A Step A
B Step D
C Step C
D Step B

____ 55. Determine the value of the function $f(x) = -\sqrt{7-x}$ when $x = -2$.
A 3
B −9
C −3
D 9

____ 56. Solve $\sqrt{4x}-5=6$
A $x=\frac{121}{16}$
B $x=\frac{11}{16}$
C $x=\frac{121}{4}$
D $x=\frac{11}{4}$

____ 57. Solve $x-12\sqrt{x}+32=0$.
A $x=\frac{9}{64}$
B $x=16$ or $x=64$
C $x=-64$ or $x=-16$
D $x=7\frac{1}{9}$

____ 58. What is $\frac{5(4x^2-y^2)}{2x^2-15xy-8y^2}$ in simplest form? State any non-permissible values.
A $\frac{5(2x+y)}{x-8y}, x\neq -\frac{y}{2}, x\neq +8y$
B $\frac{5(2x+y)}{x+8y}, x\neq -\frac{y}{2}, x\neq -8y$
C $\frac{5(2x-y)}{x+8y}, x\neq \frac{y}{2}, x\neq -8y$
D $\frac{5(2x-y)}{x-8y}, x\neq -\frac{y}{2}, x\neq 8y$

____ 59. Simplify $\frac{24x^2+101x+105}{9x^2+42x+49}$.
A $\frac{8x+15}{-3x-7}$
B $\frac{8x+15}{3x+7}$
C $\frac{-8x-15}{-3x-7}$
D $\frac{8x-15}{-3x+7}$

____ 60. What is the simplified version of the rational expression $\frac{-3x+12}{32-8x}$?
A $\frac{3}{8}(x-4)$
B $x-4$
C $\frac{3}{8}$
D $-\frac{3}{8}$

____ 61. Simplify the rational expression $\frac{4x^8y^5}{(2xy)^3}\div\frac{(x^8y^5)^3}{(2xy^8)^4}$. Express your answer with positive exponents only.
A $8x^{33}y^3$
B $8\frac{y^{19}}{x^{15}}$
C $\frac{1}{32}\frac{y^{19}}{x^{33}}$
D $\frac{1}{32}\frac{x^{33}}{y^3}$

____ 62. Express the product $\frac{x^2+6x}{2x^2+15x+27}\times\frac{x+3}{x^2-36}$ in simplest form.
A $\frac{(x^2+6x)(x+3)}{(2x^2+15x+27)(x^2-36)}$
B $\frac{x}{(2x+9)(x-6)}$
C $\frac{x}{(2x-36)(x+6)}$
D $-\frac{1}{2x+9}$

____ 63. Express the quotient $\frac{x^2-5x-24}{x^2-11x+24}\div\frac{2x^2+7x+3}{x^2+x-12}$ in simplest form.
A $\frac{2x+1}{x+4}$
B $\frac{x+4}{2x+1}$
C $\frac{(x+3)(2x+1)}{(x-3)(x+4)}$
D $\frac{(x-3)(x+4)}{(x+3)(2x+1)}$

____ 64. When fully simplified, $\frac{22x}{5}+\frac{4x}{5}$ is equal to
A $26x$
B $\frac{88}{25}x$
C $\frac{26}{5}x$
D $\frac{11}{2}x$

___ 65. Simplify the rational expression $\frac{5x+3}{x^2} - \frac{8x^2+9}{x^3}$.

A $\frac{-8x^2+5x-6}{x^3}$
C $\frac{-3x^2+3x-9}{x^3}$
B $\frac{-8x^2+5x-6}{x^2}$
D $\frac{-3x^2+3x-9}{x^2}$

___ 66. Simplify $\frac{\frac{-2}{x-7}+\frac{4}{x+7}}{\frac{x}{x^2-49}-\frac{-2}{x-7}}$. State any non-permissible values.

A $\frac{2}{x-7}, x \neq \pm 2$
C $\frac{2(x-21)}{(3x+14)}, x \neq \pm 7$
B $\frac{2}{x+2}, x \neq \pm 7$
D $\frac{2(-x+21)}{(3x+14)}, x \neq \pm 2$

___ 67. In a triathlon race, Murray must cycle 60 km and then run 20 km. Using v_c as his cycling speed and v_r as his running speed, what is the correct simplified expression for the total time needed to complete the race?

A $\frac{60v_r + 20v_c}{v_r + v_c}$
C $\frac{60v_r - 20v_c}{v_r v_c}$
B $\frac{60v_c + 20v_r}{v_r + v_c}$
D $\frac{60v_c + 20v_r}{v_r v_c}$

___ 68. Courtney and Kurtis are planning to travel 60 km in a car by travelling at x kilometres per hour for the first half of the distance, and then increasing their speed by 5 km/h to finish the distance. Which is the correct simplified expression for the total time of the trip?

A $\frac{30x+150}{x(x+5)}$
C $\frac{30x+150}{2x+5}$
B $\frac{60x+150}{2x+5}$
D $\frac{60x+150}{x(x+5)}$

___ 69. What is the exact solution to the equation $\frac{9x+2}{x-9} = \frac{2}{5}$

A $-\frac{28}{43}$
C $\frac{9}{5}$
B $-\frac{2}{9}$
D $-\frac{43}{28}$

___ 70. Evaluate the expression $|8.5 + 8(7)|$.

A −67.5
C 64.5
B −64.5
D 67.5

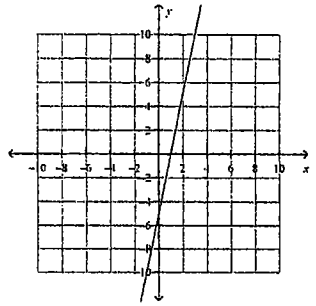
___ 71. Determine the value of the absolute value expression $5|(-8-(-9))|$.

A −5
C −85
B 85
D 5

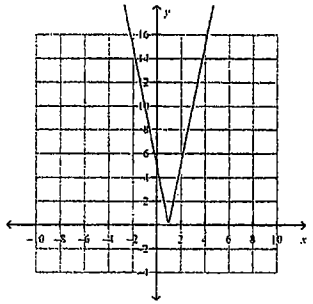
___ 72. Evaluate $|-5+6^2| - |8-(-9)| + |2-5| + |-4|$.

A 17
C 35
B 21
D 25

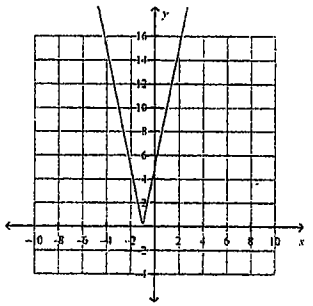
____ 73. Given the graph of $y = f(x)$, which is the graph of $y = |f(x)|$?



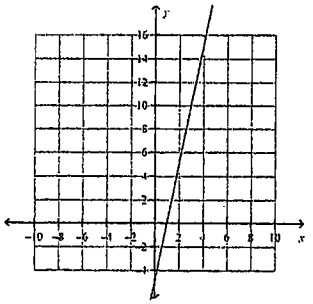
A



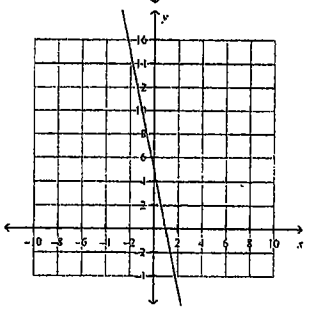
C



B



D



____ 74. What are the domain and range of $y = |6x^2 + 3x - 3|$?

A Domain: $\{x | x \in R\}$
Range: $\{y | y \in R\}$

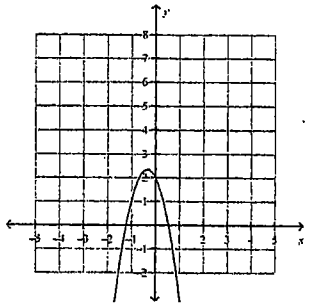
B Domain: $\{y | y \in R\}$
Range: $\{x | x \geq 0, x \in R\}$

C Domain: $\{x | x \leq 0, x \in R\}$
Range: $\{y | y \in R\}$

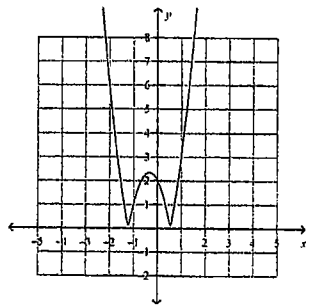
D Domain: $\{x | x \in R\}$
Range: $\{y | y \geq 0, y \in R\}$

____ 75. The graph of $y = |-3x^2 + 2x + 2|$ is

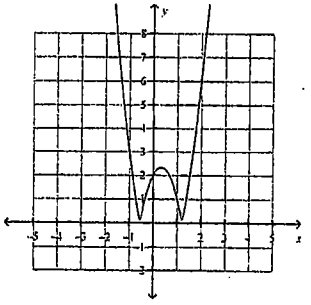
A



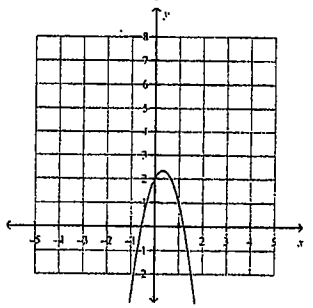
C



B



D



S (76.) What is the solution to $|4x+8| = -8x+3$?

A $x = -\frac{5}{12}$ or $x = \frac{11}{4}$

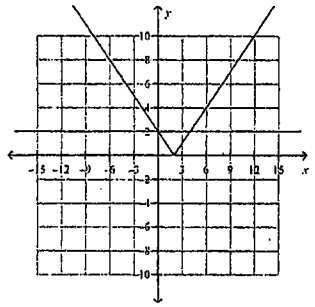
C $x = \frac{5}{12}$

B $x = \frac{5}{12}$ or $x = \frac{11}{4}$

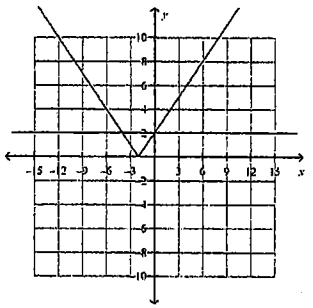
D $x = -\frac{5}{12}$

____ 77. Which graph represents the solution to $|x-2| = 2$?

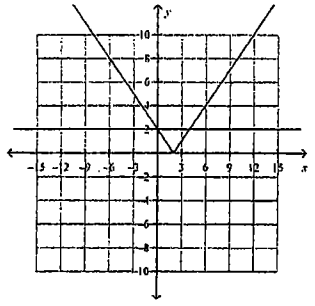
A



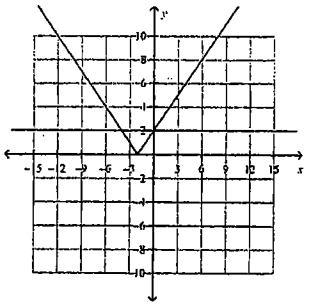
C



B



D



S (78.) Solve $|x^2 - 7| = 3$.

A $x = \sqrt{10}$

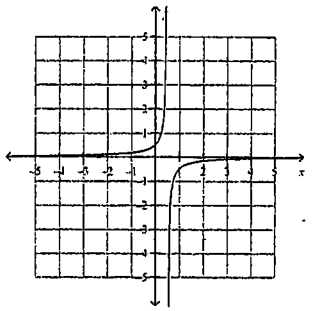
C $x = \pm\sqrt{10}, x = \pm 2$

B $x = \pm 2$

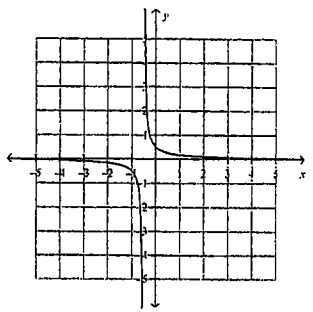
D $x = \sqrt{10}, x = 2$

C ____ 79. Which graph represents the reciprocal of the linear function $y = 4x - 2$?

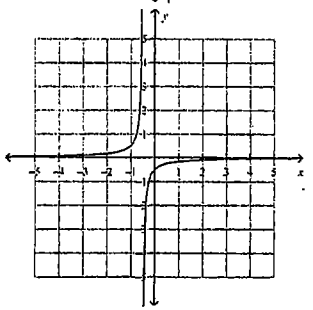
A



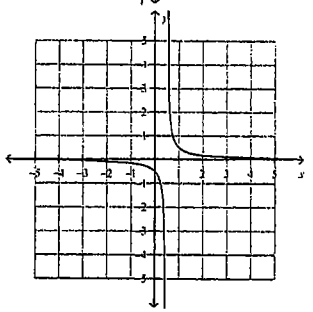
C



B

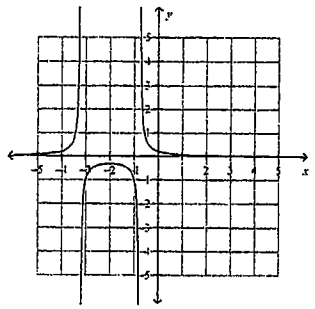


D

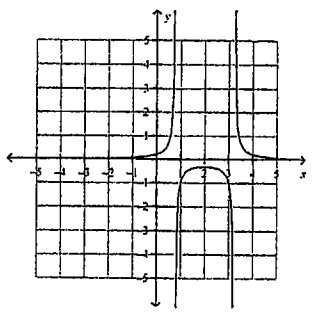


____ 80. Which graph represents the reciprocal of $y = 2(x+2)^2 - 3$?

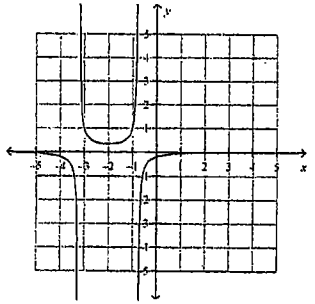
A



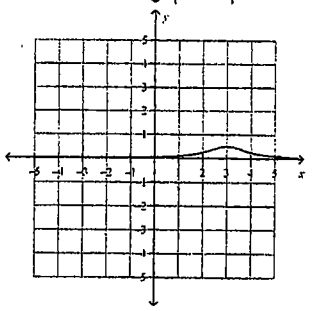
C



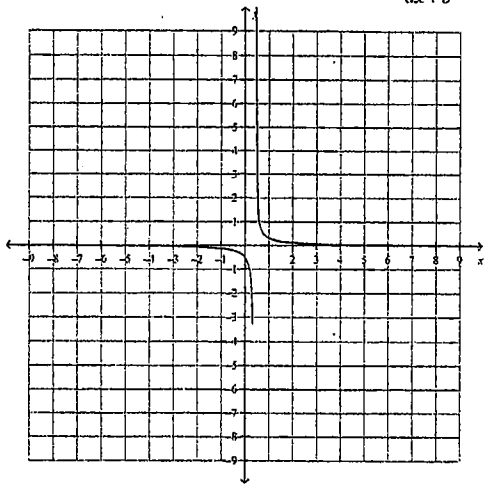
B



D



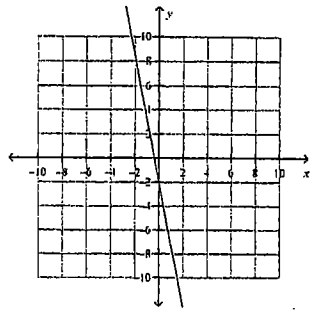
The graph of a reciprocal function of the form $f(x) = \frac{1}{ax+b}$, *where* $a \neq 0$ *and* $b \neq 0$, *is shown below.*



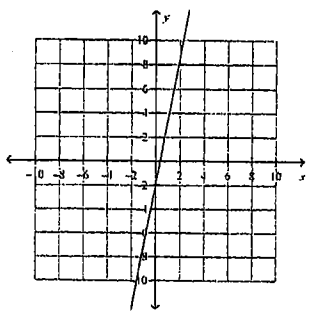
____ 81. Which graph represents the original function $f(x)$?

(graphs on page 23)

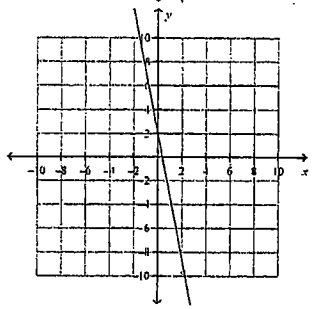
A



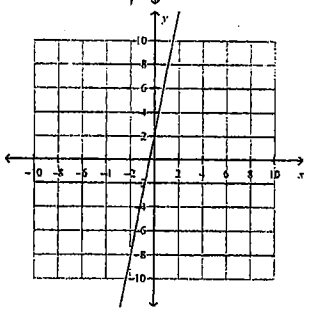
C



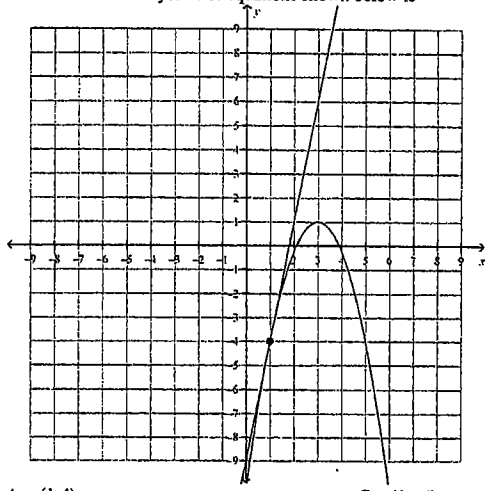
B



D

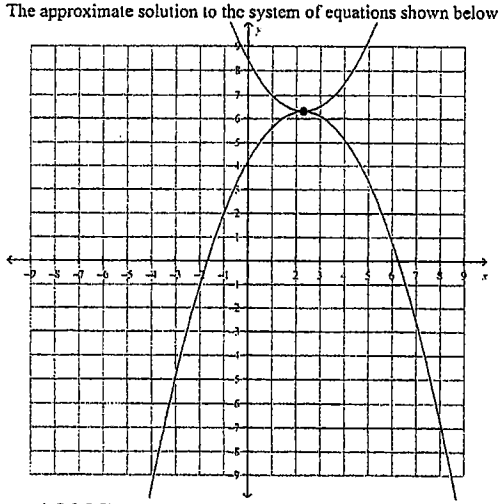


82. The solution to the system of equations shown below is



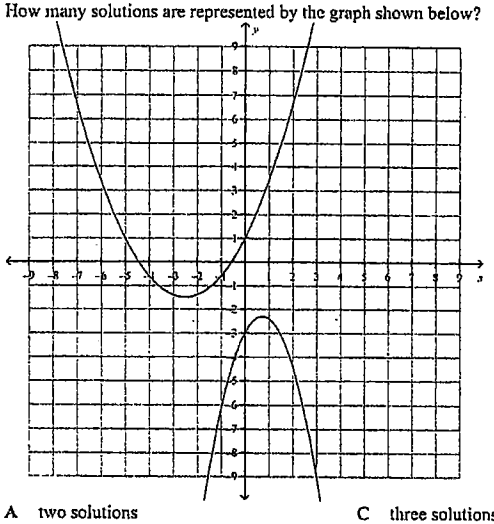
A (1,4)
B (−1,−4)
C (1,−4)
D (−1,4)

____ 83. The approximate solution to the system of equations shown below is



A (−2.3,2.3)
B (−2.3,−6.3)
C (2.3,−6.3)
D (2.3,6.3)

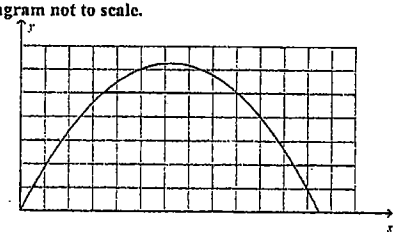
____ 84. How many solutions are represented by the graph shown below?



A two solutions
B one solution
C three solutions
D no real solution

____ 85. The cross-section of a tunnel is in the shape of a parabola. The parabolic shape of the tunnel is given by the function $y = -\frac{1}{7}x^2 + 6x$. What is the width of the tunnel, to the nearest hundredth of a metre, at a height of 47.25 m?

Diagram not to scale.



A 63.00 m
B 47.25 m
C 21.00 m
D 31.50 m

S (86) The line $y = 16x$ intersects the quadratic function $y = x^2$ at two points. What are the coordinates of the two points of intersection?

A (0,0) and (16,–256)
B (1,16) and (–16,256)
C (0, 0) and (16,256)
D (2, 2) and (–16,–256)

Four corners are cut from a rectangular piece of cardboard that measures 5 ft by 3 ft. The cuts are x feet from the corners, as shown in the figure below. After the cuts are made, the sides of the rectangle are folded to form an open box. The area of the bottom of the box is 12 ft².

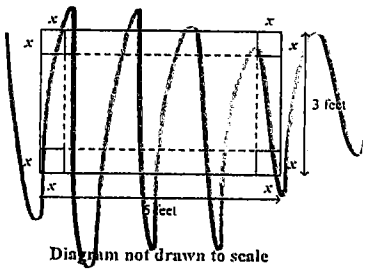


Diagram not drawn to scale

OMIT ___ What are the approximate dimensions of the box? Give your answer to one decimal place.

A width = 2.6 ft
length = 4.6 ft
height = 3.8 ft

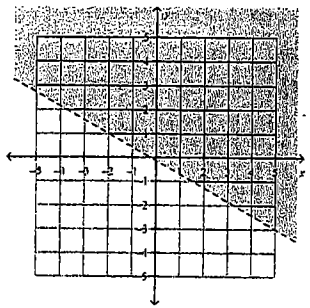
B width = 4.0 ft
length = 2.0 ft
height = 0.5 ft

C width = 4.8 ft
length = 2.8 ft
height = 0.1 ft

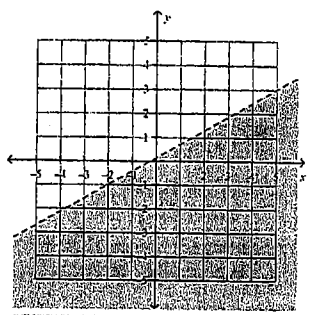
D width = 4.6 ft
length = 2.6 ft
height = 0.2 ft

___ 88. The graph of $-4x + 7y > 1$ is

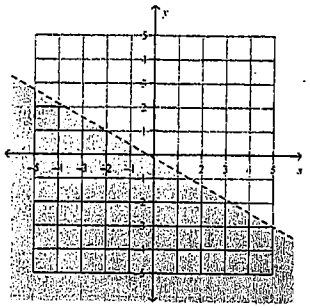
A



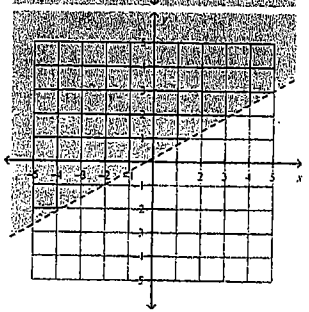
C



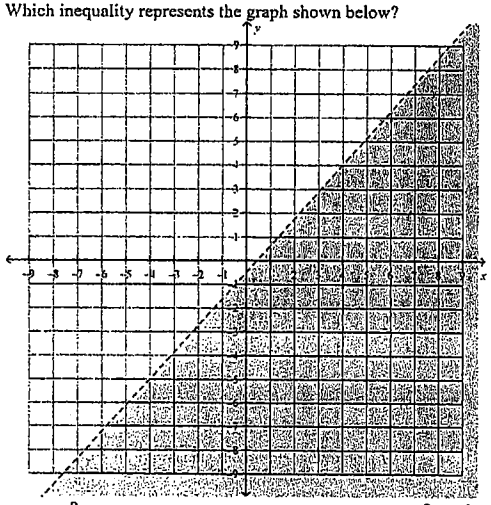
B



D



____ 89. Which inequality represents the graph shown below?



A $y > \frac{8}{9}x - 2$

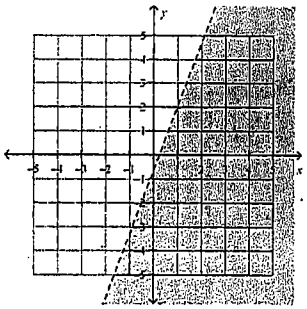
B $y < \frac{8}{9}x - 2$

C $y > \frac{9}{8}x - \frac{1}{2}$

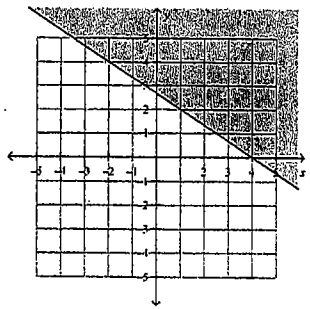
D $y < \frac{9}{8}x - \frac{1}{2}$

____ 90. The graphical solution to $y < -\frac{2}{3}x + \frac{8}{3}$ is

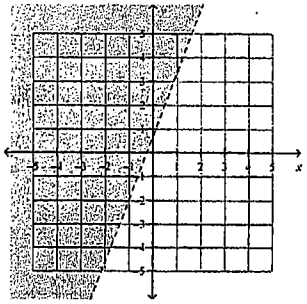
A



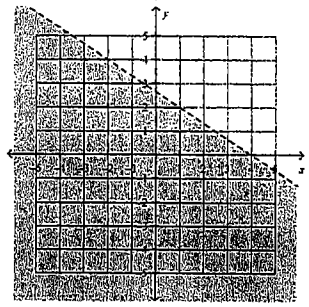
C



B

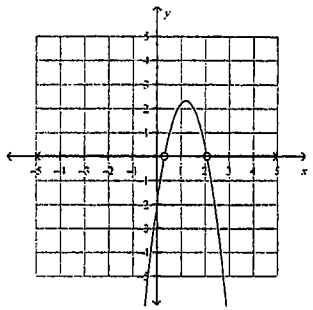


D

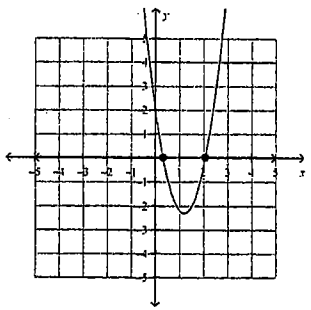


____ 91. Which graph represents the solution to the inequality $3x^2 - 7.2x + 2 < 0$?

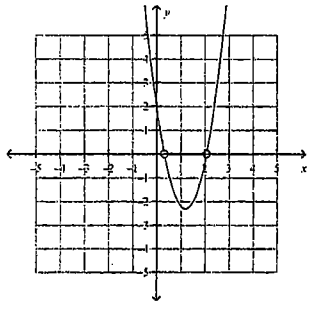
A



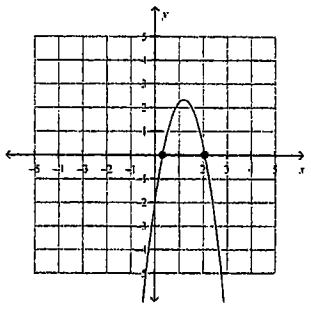
C



B

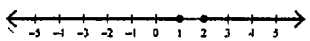


D

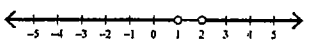


____ 92. Which graph represents the solution to the inequality $2x^2 - 6x + 4 \geq 0$?

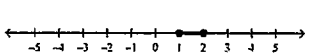
A



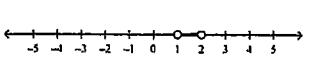
C



B



D

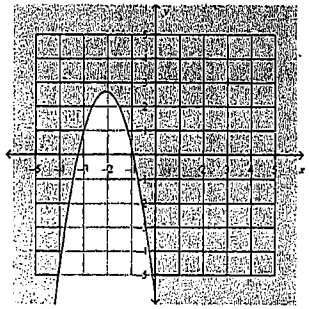


____ 93. A rectangle is x centimetres wide and $2x$ centimetres long. If the area of the rectangle has to be between 46 cm^2 and 140 cm^2, what are the possible values of x?

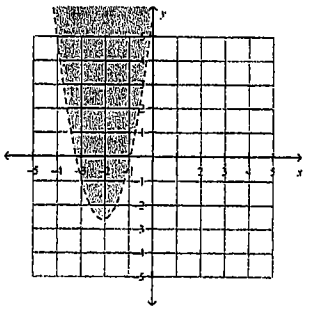
A $\sqrt{23} \leq x \leq \sqrt{70}$
B $46 \leq x \leq 140$
C $2\sqrt{23} \leq x \leq 2\sqrt{70}$
D $23 \leq x \leq 70$

____ 94. Which graph represents the solution to the inequality $y \geq -2x^2 - 8.3x - 6$?

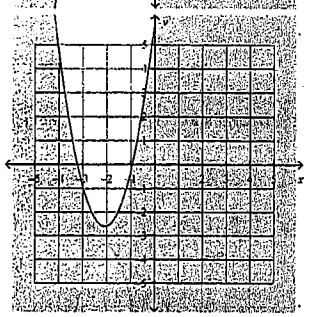
A



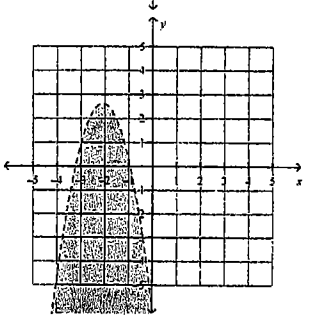
C



B

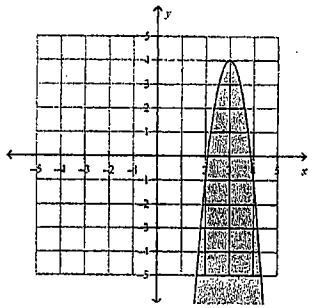


D

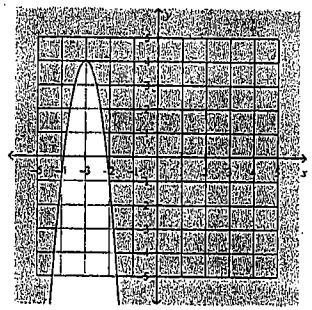


____ 95. Which graph represents the solution to the inequality $y \leq -5(x+3)^2 + 4$?

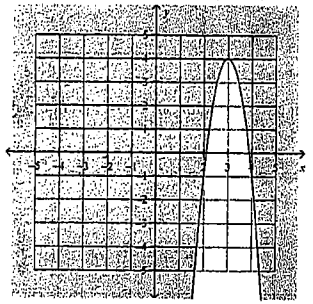
A



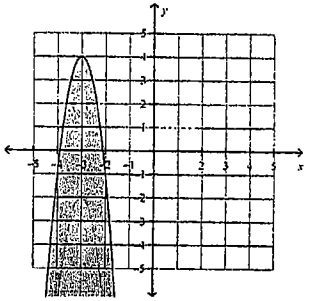
C



B

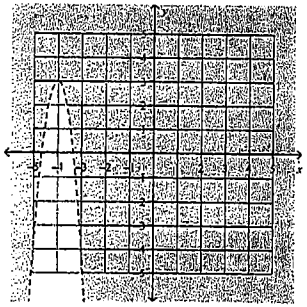


D

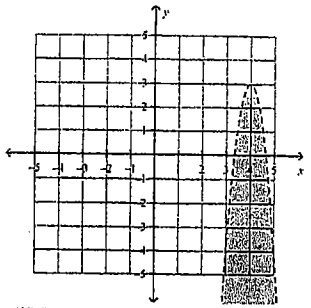


____ 96. The solution to the inequality $y < -7(x+4)^2 + 3$ is

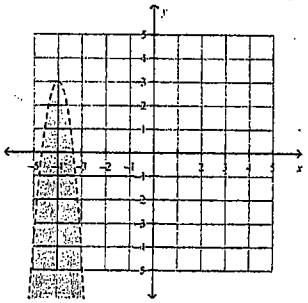
A



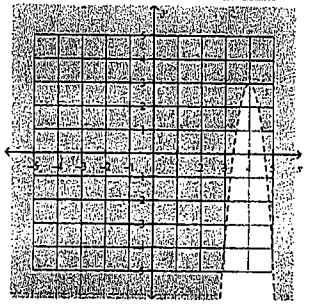
C



B



D



Pre-Calculus 11 Final Exam Review Solutions

1. C	2. A	3. C	4. A	5. C	6. A	7. C	8. C	9. D	10. A
11. D	12. D	13. C	14. D	15. B	16. C	17. D	18. D	19. C	20. C
21. D	22. C	23. B	24. C	25. C	26. C	27. A	28. B	29. B	30. A
31. C	32. D	33. A	34. D	35. B	36. D	37. B	38. B	39. D	40. A
41. A	42. A	43. D	44. B	45. D	46. C	47. B	48. B	49. B	50. D
51. A	52. C	53. D	54. D	55. C	56. C	57. B	58. D	59. B	60. C
61. B	62. B	63. B	64. C	65. C	66. C	67. C	68. D	69. A	70. C
71. D	72. B	73. A	74. D	75. B	76. D	77. A	78. C	79. D	80. A
81. C	82. C	83. D	84. D	85. C	86. C	87. D	88. D	89. D	90. D
91. B	92. A	93. A	94. A	95. D	96. B				