MATH M118 Practice Test Chapter 7 Answers

1. C

2. B

3. D

4. B

5. A

6. C

7. A

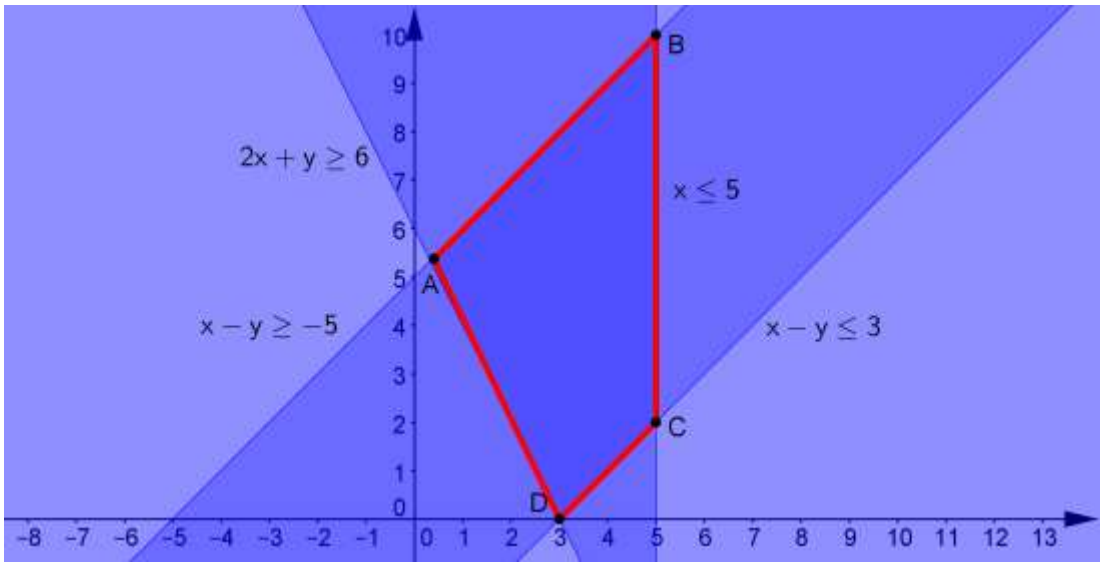
8. D

9. E

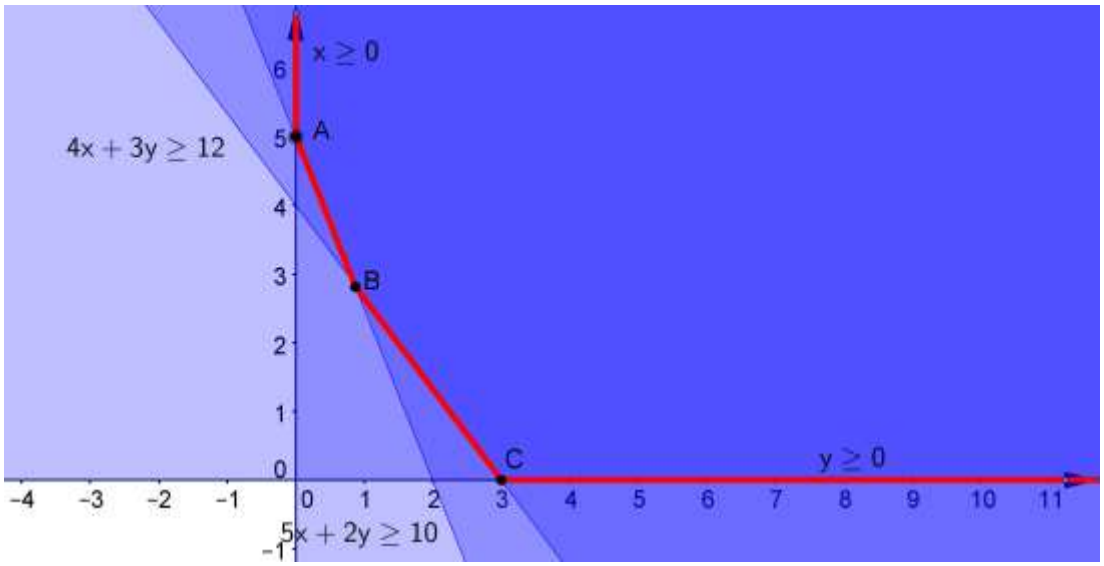
10. D

11. Max value of 120 at $x = 15$, $y = 0$
Min value of –36 at $x = 0$, $y = 12$

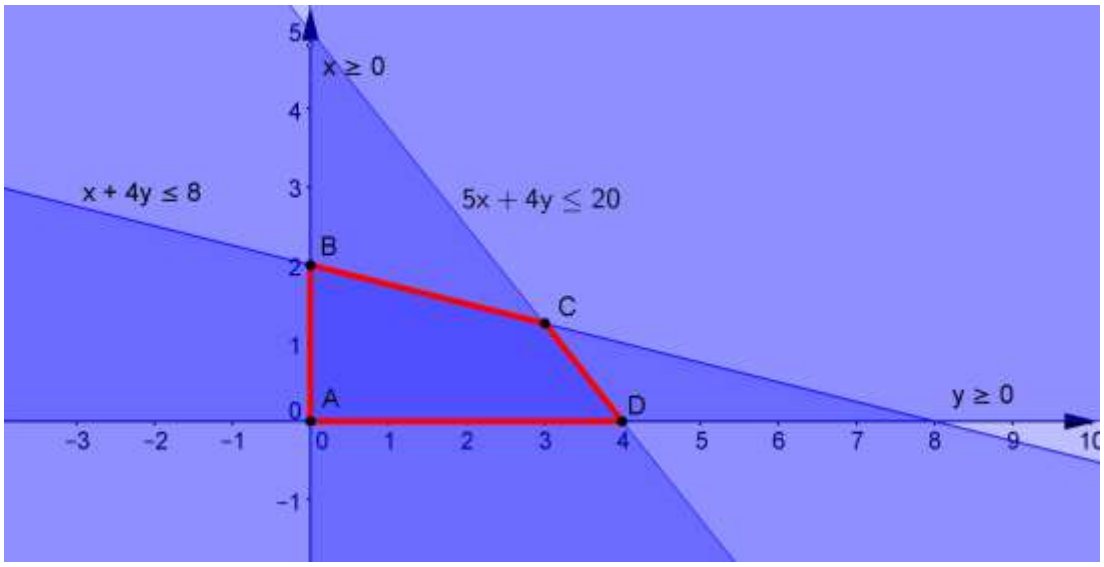
12. Bounded feasible region. Corner points at A(1/3, 16/3) , B(5, 10) , C(5, 2) , D(3, 0)



13. Unbounded feasible region. Corner points at A(0, 5) , B(6/7, 20/7) , C(3, 0)
Min value of 64 at $x = 6/7$, $y = 20/7$



14. Corner points at A(0, 0) , B(0, 2) , C(3, 5/4) , D(4, 0)
Max value of 0 at $x = 0$, $y = 0$
Min value of –247/4 (or –61.75) at $x = 3$, $y = 5/4$



15.

Minimize: Cost = $15000x + 12000y$

Subject to: $40x + 20y \geq 2800$
$40x + 10y \geq 2000$
$20x + 70y \geq 5600$
$x, y \geq 0$

16a. 2 sacks of soybean meal and 4 sacks of oats
16b. Minimum cost is $210