Name:	Exam 2	
Sec 4	Name:	
Winter 2019		
Exam 2	Time Lin	nit: 90 min

- DO NOT open the exam booklet until you are told to begin. You should write your name and section number at the top and read the instructions.
- Organize your work, in a reasonably neat and coherent way, in the space provided. If you wish for something to not be graded, please strike it out neatly. I will grade only work on the exam paper, unless you clearly indicate your desire for me to grade work on additional pages.
- You may use any results from class, homework or the text, but you must cite the result you are using. You must prove everything else.

Problem	Points	Score
1	5	
2	5	
3	10	
4	10	
5	15	
6	10	
Total:	55	

- You needn't spend your time rewriting definitions or axioms on the exam.
- When you have completed your test, hand it to me and go have a great weekend!

1. (5 points) The sum of three consecutive even numbers is 246. What are the integers?

2. (5 points) A girl is 5 years younger than her sister and the product of their ages is 204. How old is the older sister?

3. (10 points) Solve and check your result.

$$\begin{cases} 2x - 6y = -24 \\ x - 5y = -22 \end{cases}$$

4. (10 points) If 100 coins consists of quarters and dimes, how many of each are there if they are \$20.80 in total?

5. Solve,

$$4(x+3)^2 - 3 = 17$$

(a) (5 points) (5 points)  $n^2 + 8n + 15 = 0$ 

(c) (5 points)  $x^2 - x + 1 = 0$ 

6. Find the solutions of each expression.

(a) (5 points) 
$$\frac{4}{y-4} - \frac{3}{y-3} = 1$$

(b) (5 points)  $-3 + 2\sqrt{x+1} = 7$