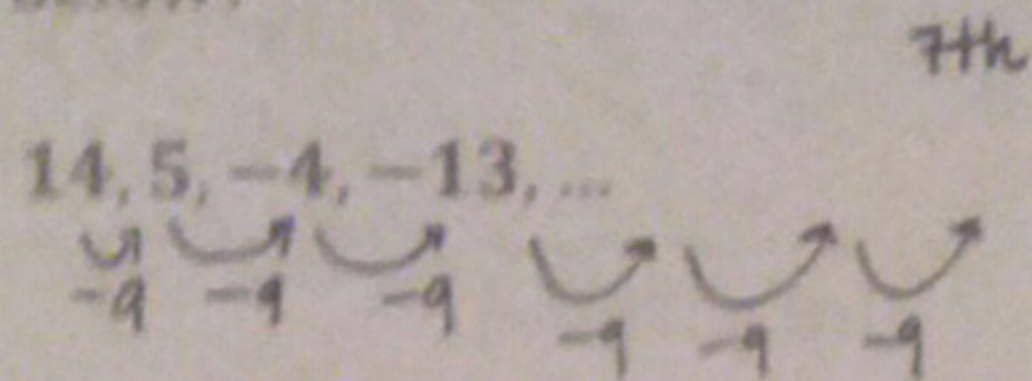


**Algebra 2 Midterm Exam Review**  
Part 1: Multiple Choice (75pts)

**UNIT 1**

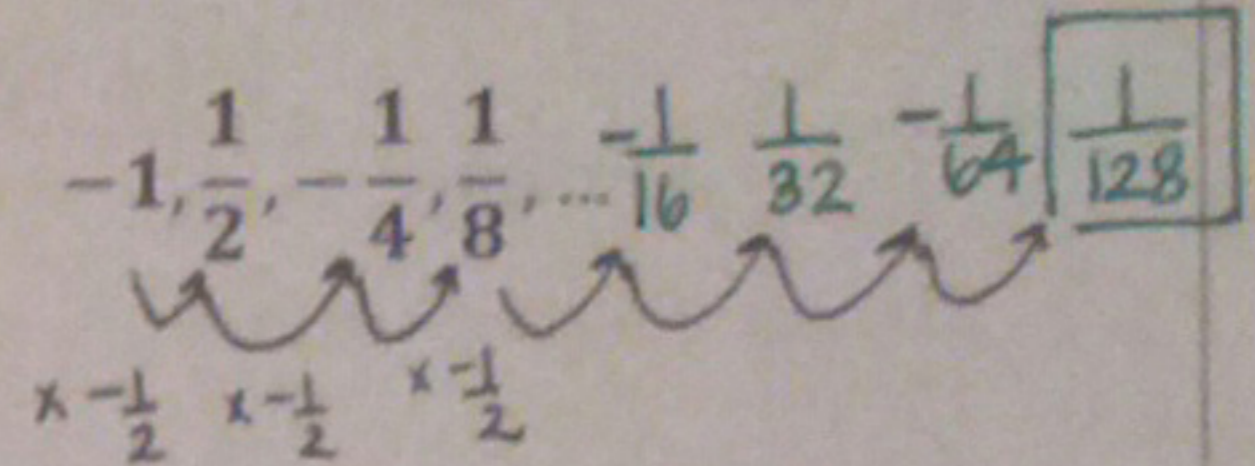
*Patterns & Expressions*

1. Which of the following is the *seventh* term in the pattern below?

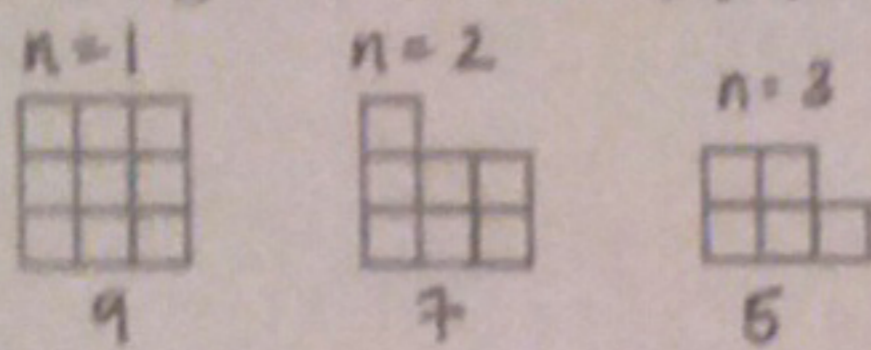


- A. -22
- B. -40
- C. -49
- D. -63

2. Which of the following is the *eighth* term in the pattern below?



3. Which of the following algebraic expressions represents the pattern in the group of figures below? (1pt)

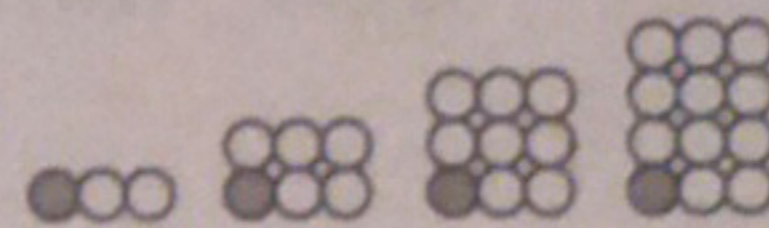


- A.  $n - 2$
- B.  $n - 11$
- C.  $9 - 2n$
- D.  $11 - 2n$

$9 - 2(n-1)$   
 $9 - 2n + 2$   
 **$11 - 2n$**

n	PROCESS
1	$9 - 2(0)$
2	$9 - 2(1)$
3	$9 - 2(2)$
...	...
n	

4. Which of the following expressions represents the number of circles in the *n*th figure?



- A.  $3n$
- B.  $n + 3$
- C.  $n - 3$
- D.  $\frac{n}{3}$

n	PROCESS
1	$3(1)$
2	$3(2)$
3	$3(3)$
4	$3(4)$
...	...
n	$3(n)$

*Solving Absolute Value Equations & Inequalities*

5. Which of the following is the solution the absolute value equation below?

$|5h - 10| = 15$

- A.  $h = -15; h = 15$
- B.  $h = -5; h = 5$
- C.  $h = -5; h = 1$
- D.  $h = -1; h = 5$

CASE #1	CASE #2
$5h - 10 = 15$	$5h - 10 = -15$
$5h = 25$	$5h = -5$
$h = 5$	$h = -1$

6. Solve the absolute value equation below. Graph your answer on the number line provided.

$|2x + 6| < 12$

CASE #1	CASE #2
$2x + 6 < 12$	$2x + 6 > -12$
$2x < 6$	$2x > -18$
$x < 3$	$x > -9$

