

## Worksheet 8

1. Subtract.

$$(8x - 2) - (7x^2 - 4x - 7)$$

A.  $-7x^2 + 4x - 5$

B.  $-7x^2 + 12x + 5$

C.  $7x^2 + 4x + 9$

D.  $7x^2 + 12x + 5$

2. Subtract  $(11r^3 - 4r^2 - 4)$  from  $(3r^3 - 2r^2 + 8)$ .

A.  $-8r^3 - 6r^2 + 12$

B.  $-8r^3 + 2r^2 + 12$

C.  $14r^3 - 6r^2 + 12$

D.  $14r^3 + 2r^2 + 12$

3. Which polynomial added to  $2x - 5(x - 3)$  yields the sum of  $x^2 - 3x + 2$  ?

A.  $x^2 - 5x - 13$

B.  $x^2 - 13$

C.  $x^2 - 6x + 17$

D.  $-x^2 + 8x - 13$

4. Find the difference.

$$(3x^2 - 2) - (-x^2 + 2x - 3)$$

A.  $2x^2 - 2x + 1$

B.  $2x^2 + 2x - 1$

C.  $4x^2 - 2x + 1$

D.  $4x^2 + 2x - 5$

5. Find the sum.

$$(4x^2 + 2x - 5) + (3 - x - 5x^2) + (2 + x^2)$$

A. 0

B.  $x$

C.  $9x^2 + x - 9x$

D.  $x^2 + x$

6. Multiply.

$$(y^2 + 3)(y^2 - 3)$$

A.  $2y^2 - 6$

B.  $y^4 - 9$

C.  $2y^4 - 9$

D.  $y^4 - 6y^2 - 9$

7. Multiply.  $(x^2 - 4)(x^2 - 2x + 4)$
- A.  $x^4 - 2x^3 - 8x^2 + 8x - 16$   
B.  $x^4 - 4x^3 + 6x^2 - 4x - 16$   
C.  $x^4 - 2x^3 + 8x^2 - 16$   
D.  $x^4 - 2x^3 + 8x - 16$
8. Multiply.  
 $(5 - x - 2y)(5 + x + 2y)$
- A.  $25 - x^2 - 4xy - 4y^2$   
B.  $25 - x^2 - 4xy + 2y^2$   
C.  $25 - x^2 + 4xy - 4y^2$   
D.  $25 - x^2 + 4xy + 4y^2$
9. Multiply.  $(7x - 5y)(5y + 7x)$
- A. 0  
B.  $49x^2 - 70xy - 25y^2$   
C.  $49x^2 - 70xy + 25y^2$   
D.  $49x^2 - 25y^2$
10. Simplify.  $x + 3(x - 2)$
- A.  $x^2 + x - 6$   
B.  $4x - 2$   
C.  $4x - 6$   
D.  $4x^2 - 6$
11. The student population at McAllen Community College has increased steadily according to
- $$P = 845t + 4000$$
- where  $t$  is the number of years since 1993. How many students were enrolled in 2001?
- A. 4,845 students  
B. 9,915 students  
C. 10,760 students  
D. 11,605 students
12. Which of the following equations has  $(-4, 3)$  as one of its solutions?
- A.  $2x - 5y = 7$   
B.  $3x + 4y = 12$   
C.  $3x - 4y = 12$   
D.  $2x - 5y = -23$