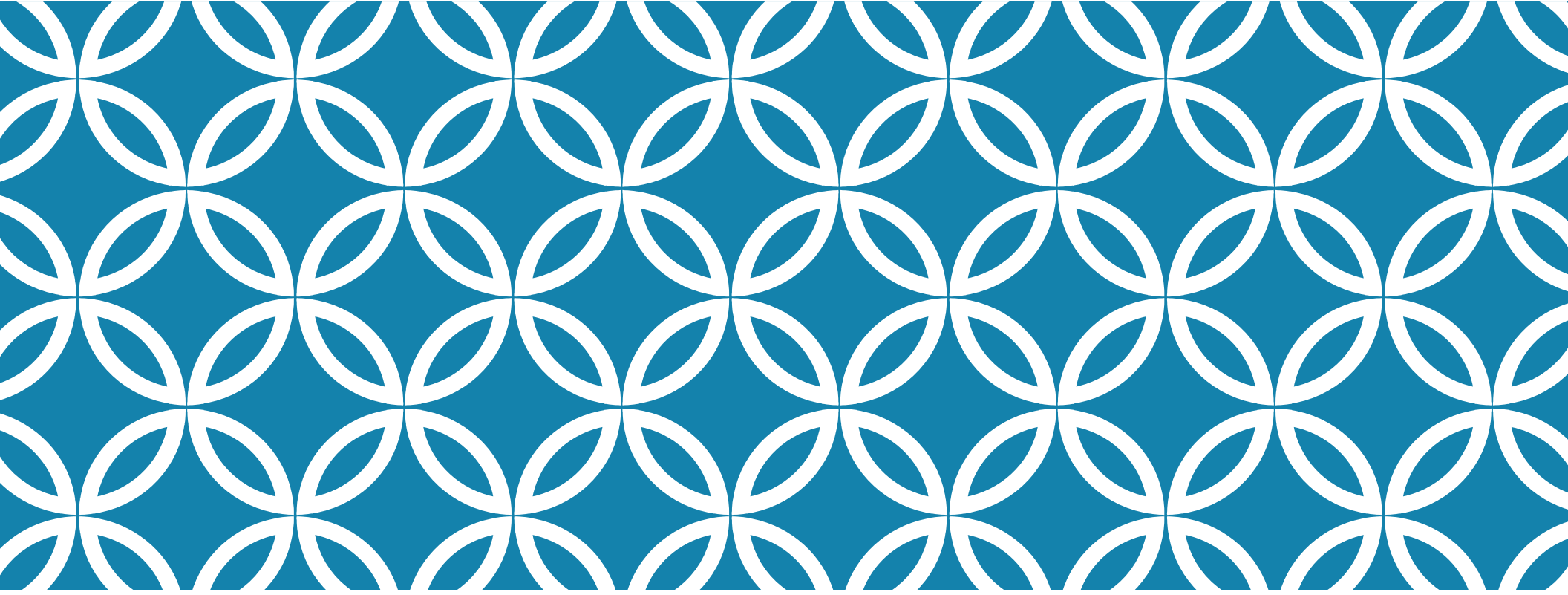


## DAILY QUEST:

Find the product.

$$(3x + 1)(4x - 4)$$

$$(x - 3)(x + 4)$$



# REVIEW FOR TEST

Goal: To identify, evaluate and use operations with expressions/polynomials.

## PROBLEM 1:

Evaluate the expression given  $z = 6$ .

$$(5z \div 6)(2 + z)$$

$$(z - 2) \div 4 + z^2$$

## PROBLEM 1B:

Evaluate the expression when  $x = 3$  and  $y = -2$

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

$$6(2x + 1) - 5y^2$$

## PROBLEM 2:

Write an equivalent expression in simplest form.

$$7x - 6 + 3x - 9$$

## PROBLEM 2A:

Write an equivalent expression in simplest form.

$$7x - 10 + 6y - 22x + 15 - 9y$$

## PROBLEM 3:

Which expressions below are equivalent? (hint: there is more than one)

$$3(2x + 7) - 5 + 8x$$

I.  $14x + 16$

II.  $6x + 7 - 5 + 8x$

III.  $14x + 21 - 5$

IV.  $-2x + 16$

V.  $21 + 6x - 5 + 8x$

## PROBLEM 3A:

Which expressions below are equivalent?

$$6x - 4(2x + 3) - 9 + 5x$$

*I.*  $3x - 6$

*II.*  $6x - 3x - 12 - 9$

*III.*  $3x - 21$

*IV.*  $6x - 8x + 3 - 9 + 5x$

*V.*  $-8x + 6x - 9 + 5x - 12$



## PROBLEM 4:

Write expressions for the statement below.

- 1) Seven more than twice the number.
- 2) eight less than a number,  $y$ .
- 3) five times a number plus six.
- 4) three plus a quotient of a number an four.

## PROBLEM 4A:

Write expressions for the statement below.

- 1) Ten less than three times the number.
- 2) eleven less than a number.
- 3) two times a number plus six.
- 4) A quotient of a number an five, increased by three.

## PROBLEM 5:

Multiply.

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

$$-2x(6x^3 - 7x + 4)$$

## PROBLEM 5A:

Multiply.

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

$$-6x(2x^4 - 3x^2 - 1)$$

## PROBLEM 6:

Identify the polynomials by terms. (monomial, binomial and trinomial)

1)  $5 + 3x$

2)  $7x^2 + 5x - 8xy$

3)  $345ab^2c$

4)  $4x^2 - 8y^2$

5)  $9xy^2 + 4x + 1$

## PROBLEM 7:

Find the product.

$$(x + 2)(2x^2 - 3x + 1)$$

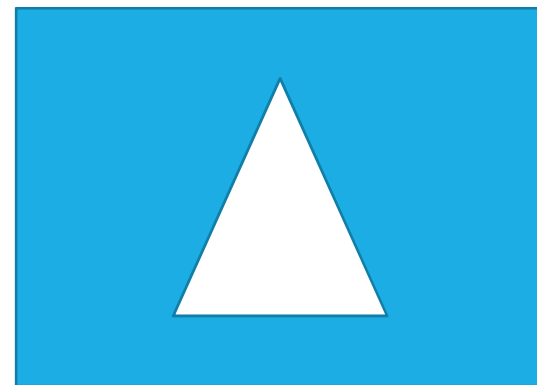
## PROBLEM 7A:

Find the product.

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

## PROBLEM 8:

The area of the large rectangle is  $6x^2 - 8x + 7$  and the area of the triangle is  $2x^2 - 4x + 3$ . What is the area of the shaded region?





## PROBLEM 8A:

The area of the large rectangle is  $7x^2 - 2x + 9$  and the area of the triangle is  $3x^2 - 5x - 6$ . What is the area of the shaded region?

