

# HONORS TEST 1 REVIEW GAME



# SCORE SHEET

|              | Problems |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
|--------------|----------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| Groups Names | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
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- 4 points for correct answer within 1 minute
- 3 points for correct answer within 2 minutes
- 2 points for correct answer within 3 minutes
- 1 points for correct answer within 4 minutes

## PROBLEM 1:

Evaluate the expression when  $x = 4$  and  $y = -3$

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

## PROBLEM 2:

Write the expression in simplest form.

$$17x + 26xy^2 - 11 - 7xy^2 + 23 - 13x - 9xy^2$$

## PROBLEM 3:

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.*  $3x + 6x - 9 + 5x - 12$

## PROBLEM 4:

Multiply.

$$4x^3y^2(6x^5y^3 - 2x^3y^2 + 5xy - 8)$$

## PROBLEM 5:

Bobby has \$3500 in his saving account. He working at Publix making \$300 per week. Write an algebraic expression that represents bobby's saving in  $(w)$  weeks.

## PROBLEM 6:

The small rectangle has an area of  $4x^2 + 6x + 7$  and the large rectangle has an area of  $10x^2 - 5x + 8$ . Find the area of the both rectangles.





## PROBLEM 7:

A desk has a length of the  $3x + 1$  and a width of  $2x - 5$ . what is the area of the desk?

## PROBLEM 8:

Find the Product.

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

## PROBLEM 9:

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

1)  $5 + 3(x + 7)$

2)  $3x^2 + 5x - 8xy$

3)  $345ab^2c$

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

5)  $4xy^2 + 4(x - 6) + 1$

## PROBLEM 10:

Part 1: A rational times a irrational create what type of answer?

Rational or Irrational

Part 2: Identify if the problem below is rational or irrational?

$$\sqrt{4} \cdot \sqrt{4} = \underline{\hspace{2cm}}$$

## PROBLEM 11:

A cyclist travels 110 kilometers in 4.4 hours. Use dimensional analysis to convert the cyclist's speed to miles per minute. Use  $1 \text{ mi} = 1.61 \text{ km}$ .

## PROBLEM 12:

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 times the quotient of a number an four.

## PROBLEM 13:

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

$$8 - 12y \div 4x + 9$$

## PROBLEM 14:

Subtract the polynomial.

$$(8x^3 + 7 - 3x) - (3 + 6x^3 + 5x)$$



## PROBLEM 15:

Multiply the polynomial.

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

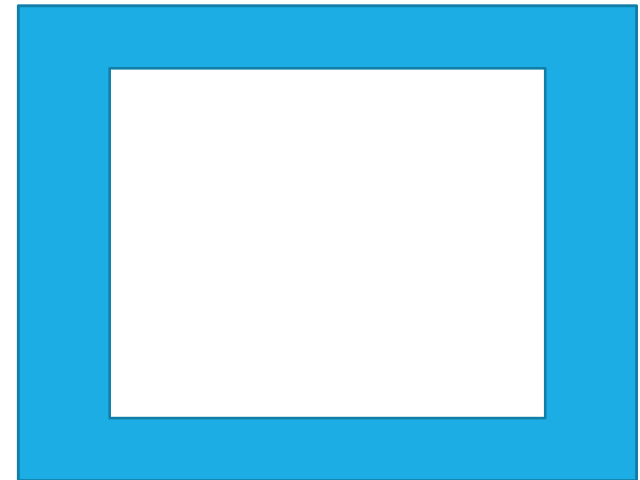
## PROBLEM 16:

Write an equivalent expression in simplest form.

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

## PROBLEM 17:

The area of the large rectangle is  $5x^2 + 3x + 7$  and the area small rectangle is  $2x^2 + 3$ . What is the area of the shaded green region as a polynomial?



## PROBLEM 18:

Identify if the problem below is rational or irrational?

1)  $3\sqrt{25}$

2)  $3\pi$

3)  $\frac{\sqrt{64}}{9}$

4)  $-5 + e$

## PROBLEM 19:

Which expressions below are equivalent?

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

*I.*  $6x + 3 - 15x - 4$

*II.*  $-9x + 30$

*III.*  $15x + 18 + 6x + 12$

*IV.*  $6x$

*V.*  $9x + 6$

## PROBLEM 20:

While walking down the street I met a man. He tipped his hat and drew his cane and in this riddle I told his name.

What is the man's name?