

MATHEMATICS 10
REVIEW TEST # 5

1. Identify the number of terms in each expression and identify them as monomial, binomial, trinomial, or polynomial.

- a) $5xy^3z^5$
- b) $2 + 9xy - 4ab - 3x^4$
- c) $17xy - 6ef$

2. Expand and simplify.

- a) $(8a^2 + 12a - 9) + (13a^2 - 7a + 12)$
- b) $(5x^2 - 9x + 8) - (7x^2 - 5x - 6)$
- c) $(5x^5y^2z) (-3x^4y^3z^2)$
- d) $\frac{-54x^5y^3z^2}{6x^3y}$
- e) $3x(5x + 7) + 2x(6x - 8)$
- f) $7x(3x - 4y + 6) - 7x(5x - 7y - 9)$
- g) $(x - 2)(x + 5)$
- h) $3(x + 4)(x - 3)$

3. Factor

- a) $5x - 30$
- b) $7x^2 + 14x$
- c) $6x^2y + 9x^2y^4 - 12x^3y$
- d) $ax + bx + ca + cb$

4. Factor, if possible.

- a) $x^2 + x - 42$
- b) $x^2 + 8x + 12$
- c) $x^2 - 169$
- d) $8x^2 - 8x - 24$
- e) $x^3 + x^2 - 42x$

5. Factor, if possible.

a) $2x^2 + x - 15$

b) $6x^2 - 5x - 4$

c) $16x^2 - 9$

d) $4x^2 + 20xy + 25y^2$

6. Write an expression for the length and width of the rectangle that has area $x^2 + 11x + 28$

Expression for length _____ Expression for width _____

What would the length and width be if $x = 5$?

Length _____ Width _____

7. Write an expression for the shaded area of the following diagram.

