

**ALGEBRAIC EXPRESSIONS (Review)****Expand the following using the distributive property.**

|                    |                     |                       |
|--------------------|---------------------|-----------------------|
| <b>a)</b> $x(x+2)$ | <b>b)</b> $7(x+2)$  | <b>c)</b> $(x-6)x$    |
| <b>d)</b> $5(x-6)$ | <b>e)</b> $x(2x+4)$ | <b>f)</b> $-10(2x+4)$ |

**Evaluate each expression.**

|                                  |                                  |                                         |
|----------------------------------|----------------------------------|-----------------------------------------|
| <b>a)</b> $3x + 14$ for $x = 12$ | <b>b)</b> $7r - 3$ for $r = 9$   | <b>c)</b> $24 - 2a$ for $a = -3$        |
| <b>d)</b> $15 + 2k$ for $k = 10$ | <b>e)</b> $x^2 - 1$ for $x = -2$ | <b>f)</b> $x^3 + 2x^2 + 3$ for $x = -1$ |

**Collect like terms and simplify.**

|                                      |                                  |
|--------------------------------------|----------------------------------|
| <b>a)</b> $3x + 3y - 5x + 4y$        | <b>b)</b> $x + 6x - 4 + 3xy - 1$ |
| <b>c)</b> $12g^2 - 2gh + 7hg - 3h^2$ | <b>d)</b> $3m + 4 - 4m^2 - 5m$   |

**Determine the factors each number.**

|              |              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>a) 36</b> | <b>b) 40</b> | <b>c) 32</b> | <b>d) 24</b> | <b>e) 18</b> | <b>f) 72</b> |
|              |              |              |              |              |              |

**Square each monomial.**

|                            |                             |
|----------------------------|-----------------------------|
| <b>a) <math>3x</math></b>  | <b>b) <math>5a^2</math></b> |
|                            |                             |
| <b>c) <math>-2g</math></b> | <b>d) <math>4p^4</math></b> |
|                            |                             |

**Determine a pair of integers that meet the following requirements.**

**a) Multiply to 24**

Add to 10

**b) Multiply to -25**

Add to 0

**c) Multiply to -32**

Add to -4

Determine the y-intercept for each of the graphed lines

a)

c)

b)

d)

