Name: $\qquad$

## 070417 Quiz

1) Gina expanded a product of two factors. This was one of the lines in Gina's work.

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

Write the product that Gina was expanding. $\qquad$
2) Write the following function definitions in factored form:
a) $y=x^{2}-2 x+12$
b) $y=x^{2}-11 x+18$
c) $y=-x^{2}-4 x+12$
d) $y=6 x^{2}+17 x+5$
3) $y=x^{2}-10 x-24$ can be rewritten as $(r x+s)(t x+u)$ for certain numbers $r, s, t$ and $u$.
a) What is the product of $s$ and $u$ ? $\qquad$ b) What is the product of r and t ? $\qquad$
4) Expand each function definition. Show your work:
a) $y=(2 x+7)(x-3)$
b) $y=(x+2)(x+4)$
c) $y=(x-1)(x-8)$
5) Here are graphs of two quadratic functions. Write the definition of each function in expanded form.



