


HW: Worksheet/2-30 even

Warm up:

Multiply.

$$1) \underline{(x + 2)}(\underline{x + 7}) = \underline{x^2 + 9x + 14}$$


$$2) (x - 3)(x - 9) = x^2 - 12x + 27$$

$$3) (x + 4)(x - 5) = x^2 - x - 20$$

$$x^2 + 5x + 4$$

$$(x + 1)(x + 4)$$

$$x^2 + bx + c$$

$$(x \quad)(x \quad)$$

"|"
sum = b
product = c

$$x^2 + 20x + 36$$

$$(x + 2)(x + 18)$$

1, 36
2, 18
3, 12
4, 9
6, 6

$$r^2 - 6r + 8$$

$$(r - 2)(r - 4)$$

$$u^2 + 12u + 28$$

$$\cancel{(u - 2)(u + 14)}$$

$$\cancel{(u + 2)(u + 14)}$$

prime

1, 28
2, 14
4, 7

$$u^2 - 50uv + 49v^2$$

$$(u - v)(u - 49v)$$

Factor.

1) $a^2 - 15a + 26$

$(a-13)(a-2)$

2) $42 - 23k + k^2$

$k^2 - 23k + 42$
 $(k-2)(k-21)$

3) $r^2 + 20r + 75$

$(r+15)(r+5)$

4) $c^2 - 16cd + 48d^2$

$(c-12d)(c-4d)$

5) $r^2 - 15rs + 54s^2$

$(r-9s)(r-6s)$

6) $x^2 + 18x + 32$

$(x+2)(x+16)$

7) $x^4 - 5x^2 + 4$

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

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

8) $(y+2)^2 - 6(y+2) + 5$

$((y+2)-1)((y+2)-5)$

$(y+2-1)(y+2-5)$

$(y+1)(y-3)$

$$v^2 - 3v - 4$$

$$(v - 4)(v + 1)$$

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