HW: 8.2/19-29 odd, 37, 39, 43a, 43b, 46

Warm up:

Simplify.

1) $5(x + 2) = 5x + 10$

2) $x(4x - 5) = 4x^2 - 5x$

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

$$3x^3 - 6x^2 + 12x$$

$5a^2b^3(2a^2 - 4ab + b^2)$

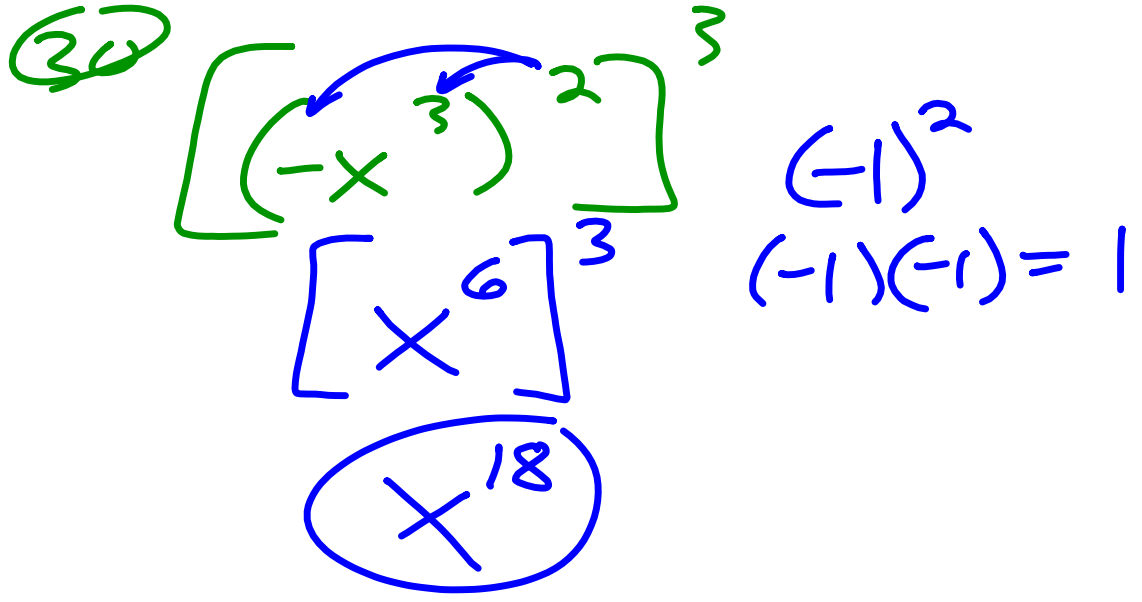
$10a^4b^3 - 20a^3b^4 + 5a^2b^5$

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

$-2x^2z^3 - 4x^3z^4 + x^2z^3 + 5x^4z^3 + 3x^4z^4 + 4x^3z^4$

$-x^2z^3 + 5x^4z^3 + 3x^4z^4$

HW Solutions



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$(2x^2y^3)^4(-xy^2)^2$

$16x^8y^{12} \cdot x^2y^4$

$16x^{10}y^{16}$

$x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x$

(42) $x^n \cdot x^2 = x^{n+2}$

82 $(5a^2b)^2(5b^5)^3$

$25a^4b^2 \cdot 125b^{15}$

$3125a^4b^{17}$

(30) $p(-pq^2)^4$ $\quad p^3(2pq^2)^2$

$p(p^4q^4)$ $\quad p^3(4p^2q^4)$

p^5q^4 $\quad 4p^5q^4$

sum $p^5q^4 + 4p^5q^4 = 5p^5q^4$

product $p^5q^4 \cdot 4p^5q^4 = 4p^{10}q^8$

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$$2x^3 + 5x^3 = 7x^3$$

(28) $\left(\frac{1}{10}x^3y\right)^3(10y)^4$

$\frac{1}{1000}x^9y^3 \cdot 10000y^4$

$10x^9y^7$

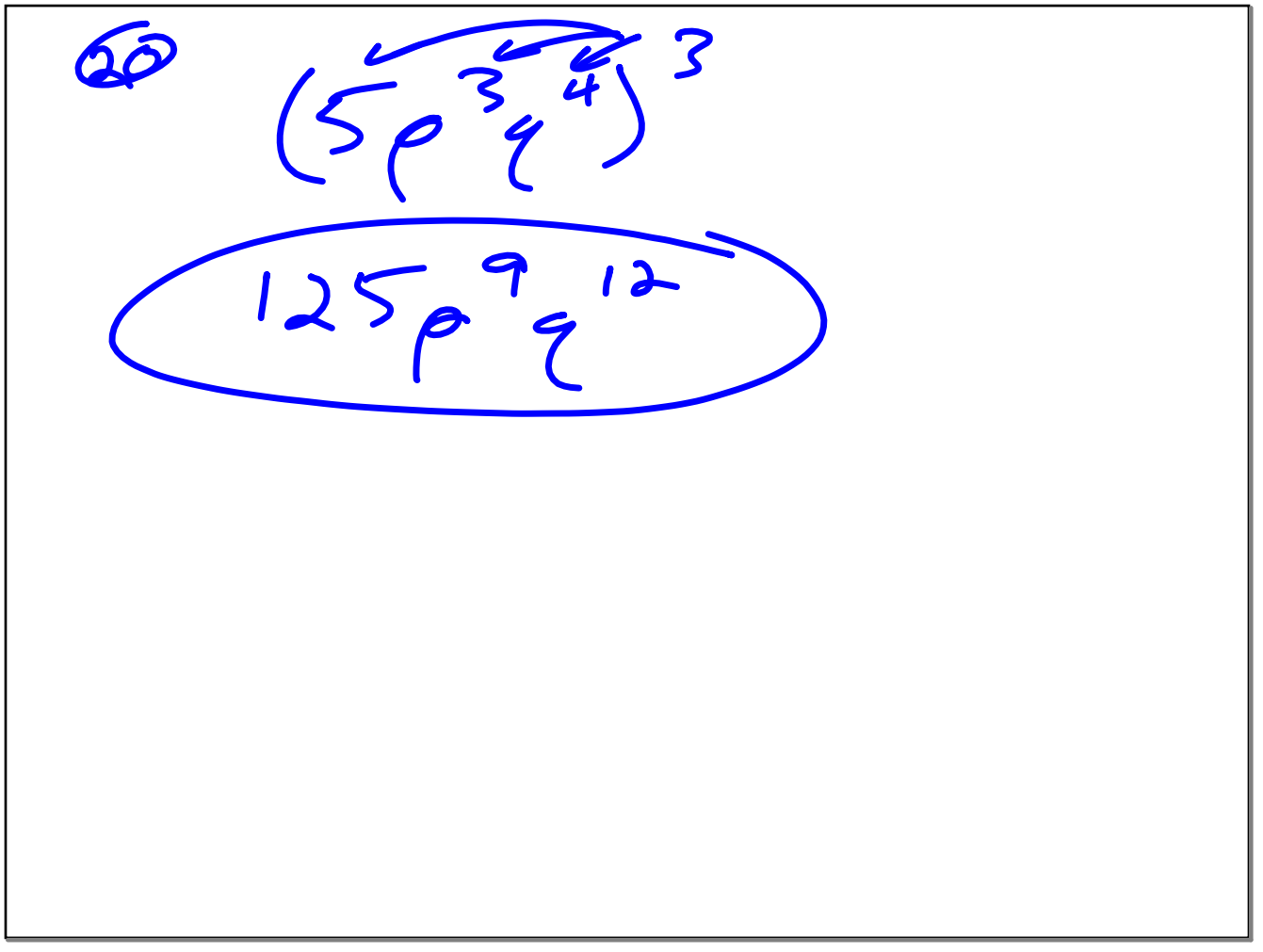
(18) $(2x^2y)^5$

$32x^{10}y^5$

22 $(3c)^2(3c)^3$

$9c^2 \cdot 27c^3$

$243c^5$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$(5p^3q^4)^3$
$125p^9q^{12}$

(4) $(a^x)^y (a^y)^x$

$a^{xy} \cdot a^{xy} = a^{2xy}$

(48) $(2x^n)^3 (x^n)^5$

$8x^{3n} \cdot x^{5n}$

$8x^{8n}$

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$$(t^m)^n \cdot 3(t^n)^m$$

$$t^{mn} \cdot 3t^{mn}$$

$$3t^{2mn}$$

8.2/4, 20, 22, 38

(4) $\dfrac{-3p^4r^3(2p^2r^4-6p^6r^3-5)}{-6p^6r^7+18p^{10}r^6+15p^4r^3}$

(22)

$$-3m^3(2m^3-12m^2+2m+25)$$

$$-6m^6+36m^5-6m^4-75m^3$$

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