


Ch 8 REVIEW: Finish pg1-2 During Class

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1 8-1: I can write polynomials in standard form, name leading coefficient, name degree and perform addition and subtraction on polynomials.

<p>1. $(5a^2 + 6a + 2) - (7a^2 - 7a + 5)$ $5a^2 - 7a^2 + 6a + 7a + 2 - 5$</p> <p>Standard Form: $-2a^2 + 13a - 3$</p> <p>Degree: <u>2</u> Leading Coefficient: <u>-2</u></p>	<p>2. $(-4p^2 - p + 9) + (p^2 + 3p - 1)$ $-4p^2 + p^2 - p + 3p + 9 - 1$</p> <p>Standard Form: $-3p^2 + 2p + 8$</p> <p>Degree: <u>2</u> Leading Coefficient: <u>-3</u></p>
<p>3. The measures of two sides of a triangle are given. If P is the perimeter, and $P = 10x + 5y$, find the measure of the third side. (<i>Perimeter = sum of all sides</i>)</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>$10x + 5y - (3x + 4y + 5x - y) = \text{missing}$ $10x + 5y - 3x - 4y - 5x + y$ $2x + 2y$</p> </div> <div style="width: 35%; text-align: center;">  <p>check: $3x + 4y + 5x - y + 2x + 2y$ $10x + 5y$ ✓</p> </div> </div>	

T8-2: I can multiply polynomials using the distributive & double distributive method.

Write answers in standard form and always show ALL steps!

<p>1. $6t(2t - 3) - 5(2t^2 + 9t - 3)$ $12t^2 - 18t - 10t^2 - 45t + 15$ $2t^2 - 63t + 15$</p>	<p>2. $-2(3m^3 + 5m + 6) + 3m(2m^2 + 3m + 1)$ $-6m^3 - 10m - 12 + 6m^3 + 9m^2 + 3m$ $9m^2 - 7m - 12$</p>
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Solve. Show all steps and verify your answer!

<p>3. $3(a + 2) + 5 = 2a + 4$ $3a + 6 + 5 = 2a + 4$ $3a + 11 = 2a + 4$ $-2a - 11 \quad -2a \quad -11$ $a = -7$</p>	<p>4. $2(4x + 2) - 8 = 4(x + 3)$ $8x + 4 - 8 = 4x + 12$ $8x - 4 = 4x + 12$ $-4x + 4 \quad -4x \quad +4$ $4x = 16$ $x = 4$</p>
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Find each product. Double Distribute.

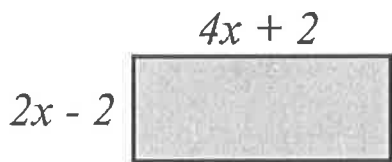
<p>5. $(4h - 2)(4h - 1)$ $4h(4h - 1) - 2(4h - 1)$ $4h(4h) + 4h(-1) - 2(4h) - 2(-1)$ $16h^2 + (-4)h - 8h + 2$ $16h^2 - 12h + 2$</p>	<p>6. $(w + 4)(w^2 + 3w - 6)$ $w(w^2 + 3w - 6) + 4(w^2 + 3w - 6)$ $w^3 + 3w^2 - 6w + 4w^2 + 12w - 24$ $w^3 + 7w^2 + 6w - 24$</p>
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T 8-3: I can multiply polynomials using FOIL method.

<p>1. $(n + 9)^2$</p> $(n+9)(n+9)$ $n^2 + 18n + 81$	<p>2. $(2x - 8)^2$</p> $(2x-8)(2x-8)$ $4x^2 - 16x - 16x + 64$ $4x^2 - 32x + 64$
<p>3. $(k + 13)(k - 13)$</p> $k^2 + 13k - 13k - 169$ $k^2 - 169$	<p>4. $(3x - 5)(3x + 5)$</p> $9x^2 - 15x + 15x - 25$ $9x^2 - 25$

Find an expression to represent the area of the shaded regions of the figures. (Area = Base · Height)

5.

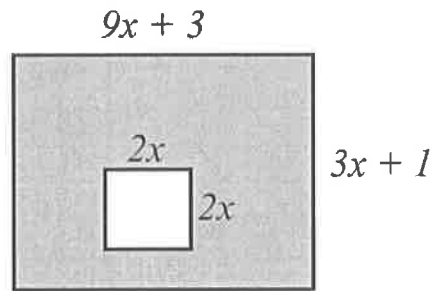


$$(2x-2)(4x+2)$$

$$8x^2 + 4x - 8x - 4$$

$$8x^2 - 4x - 4$$

6.



$$(9x+3)(3x+1) = 27x^2 + 9x + 9x + 3$$

$$= 27x^2 + 18x + 3$$

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

$$27x^2 + 18x + 3 - 4x^2$$

$$23x^2 + 18x + 3$$

T 8-1: I can write polynomials in standard form, name leading coefficient, name degree and perform addition and subtraction on polynomials.

Section 8.1: Find each sum or difference.

1. $(4y + 5) + (-7y - 1)$

$$-3y + 4$$

2. $(-x^2 + 3x) - (5x + 2x^2)$

$$-3x^2 - 2x$$

3. $(4k^2 + 8k + 2) - (2k + 3)$

$$4k^2 + 6k - 1$$

4. $(2m^2 + 6m) + (m^2 - 5m + 7)$

$$3m^2 + m + 7$$

6. $(x^3 - 3x + 1) - (x^3 + 7 - 12x)$

$$9x - 6$$

7. $(6x^2 - x + 1) - (-4 + 2x^2 + 8x)$

$$4x^2 - 9x + 5$$

Write each polynomial in standard form. Identify the leading coefficient.

8. $8x^2 - 15 + 5x^5$

$$5x^5 + 8x^2 - 15$$

Deg: 5
LC: 5

9. $10x - 7 + x^4 + 4x^3$

$$x^4 + 4x^3 + 10x - 7$$

Deg: 4
LC: 1

10. $13x^2 - 5 + 6x^3 - x$

$$6x^3 + 13x^2 - x - 5$$

Deg: 3
LC: 6

12. $4x + 2x^5 - 6x^3 + 2$

$$2x^5 - 6x^3 + 4x + 2$$

Deg: 5
LC: 2

T8-2: I can multiply polynomials using the distributive & double distributive method.

Section 8.2: Find each product and simplify.

1. $2h(-7h^2 - 4h)$

$$-14h^3 - 8h^2$$

2. $6pq(3p^2 + 4q)$

$$18p^3q + 24pq^2$$

3. $-\frac{1}{4}m(8m^2 + m - 7)$

$$-2m^3 - \frac{1}{4}m^2 + \frac{7}{4}m$$

4. $-\frac{2}{3}n^2(-9n^2 + 3n + 6)$

$$6n^4 - 2n^3 - 4n^2$$

5. $-2\ell(3\ell - 4) + 7\ell$

$$-6\ell^2 + 8\ell + 7\ell$$

$$-6\ell^2 + 15\ell$$

6. $5w(-7w + 3) + 2w(-2w^2 + 19w + 2)$

$$-35w^2 + 15w - 4w^3 + 38w^2 + 14w$$

$$-4w^3 + 3w^2 + 19w$$

Solve each equation.

6. $3(a+2)+5=2a+4$

$$\begin{aligned} 3a+6+5 &= 2a+4 \\ 3a+11 &= 2a+4 \\ a &= -7 \end{aligned}$$

7. $2(4x+2)-8=4(x+3)$

$$\begin{aligned} 8x+4-8 &= 4x+12 \\ 4x &= 16 \end{aligned} \quad x=4$$

8. $5(y+1)+2=4(y+2)-6$

$$\begin{aligned} 5y+5+2 &= 4y+8-6 \\ -4y+7 &= -4y+2 \\ y &= -5 \end{aligned}$$

9. $4(b+6)=2(b+5)+2$

$$\begin{aligned} 4b+24 &= 2b+10+2 \\ 2b &= -12 \\ b &= -6 \end{aligned}$$

T8-2 Double Distribute

(Section 8.3) Find each product.

1. $(m+4)(m+1)$ $m(m+1)+4(m+1)$

$$m^2+5m+4$$

2. $(x+2)(x+2)$ $x(x+2)+2(x+2)$

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

3. $(r+1)(r-2)$ $r(r-2)+1(r-2)$

$$r^2-r-2$$

4. $(n-5)(n+1)$

$$n(n+1)-5(n+1)$$

$$n^2-4n-5$$

5. $(4c+1)(2c+1)$

$$4c(2c+1)+1(2c+1)$$

$$8c^2+4c+2c+1$$

$$8c^2+6c+1$$

6. $(5a-2)(2a-3)$

$$5a(2a-3)-2(2a-3)$$

$$10a^2-15a-4a+6$$

$$10a^2-19a+6$$

7. $(x-y)(2x-y)$

$$2x^2-3xy+y^2$$

$$x(2x-y)-y(2x-y)$$

$$2x^2-xy-2xy+y^2$$

8. $(t+1)(t^2+2t+4)$

$$t(t^2+2t+4)+1(t^2+2t+4)$$

$$t^3+2t^2+4t+t^2+2t+4$$

$$t^3+3t^2+6t+4$$

T 8-3: I can multiply polynomials using FOIL method.

Section 8.4: Find each product using FOIL.

1. $(x-10)^2$

$$(x-10)(x-10)$$

$$x^2-20x+100$$

2. $(r-11)^2$

$$(r-11)(r-11)$$

$$r^2-22r+121$$

3. $(p+7)^2$

$$(p+7)(p+7)$$

$$p^2+14p+49$$

6. $(2b+6)(2b-6)$

$$4b^2+12b-12b-36$$

$$4b^2-36$$

7. $(4j+2)^2$

$$(4j+2)(4j+2)$$

$$16j^2+16j+4$$

9. $(5w-4)^2$

$$(5w-4)(5w-4)$$

$$25w^2-40w+16$$

10. $(6a-7b)(6a+7b)$

$$6a^2-49b^2$$

11. $(8h+3)(8h-3)$

$$64h^2-9$$

12. $(9x+2y^2)^2$

$$(9x+2y^2)(9x+2y^2)$$

$$81x^2+18xy^2+18xy^2+4y^4$$

$$81x^2+36xy^2+4y^4$$