02.07.2015

HOMEWORX 02.07.2015

Evan's algebraic toils continue...

Express as a polynomial
Swok. Cole, P. 43, #11

$$(3x+5)(2x^2+9x-5)$$

Express as a polynomial
Swok. Cole, P. 43, #19

$$\frac{3u^3v^4-2u^5v^2+(u^2v^2)^2}{u^3v^2}$$

Express as a polynomial
Swok. Cole, P. 44, #35

$$(x^{\frac{1}{3}}-y^{\frac{1}{3}})(x^{\frac{2}{3}}+x^{\frac{1}{3}}y^{\frac{1}{3}}+y^{\frac{2}{3}})$$

Express as a polynomial

Swok. Cole, P. 44, #52

$$121r^3s^4 + 77r^2s^4 - 55r^4s^3$$

Simplify
Swok. Cole, P. 54, #27

$$\frac{p^4 + 3p^3 - 8p - 24}{p^3 - 2p^2 - 9p + 18}$$

Simplify
Swok. Cole, P. 55, #71

$$(x^2 - 4)^{\frac{1}{2}}(3)(2x + 1)^2(2) + (2x + 1)^3(\frac{1}{2})(x^2 - 4)^{\frac{-1}{2}}(2x)$$

Simplify
Swok. Cole, P. 55, #81

$$\frac{(4x^2 + 9)^{\frac{1}{2}}(2) - (2x + 3)(\frac{1}{2})(4x^2x + 9)^{\frac{-1}{2}}(8x)}{[(4x^2 + 9)^{\frac{1}{2}}]^2}$$

Simplify; rationalize denominator if necessary
Swok. Cole, P. 56, #20

$$\left(\frac{-64x^3}{z^6y^9}^{\frac{2}{3}}\right)$$

Express in the form *a+bi*, where *a* and *b* are real numbers
Swok. Cole, P. 96, Example 3a

$$4(2 + 5i) - (3 - 4i)$$

Express in the form *a+bi*, where *a* and *b* are real numbers
Swok. Cole, P. 96, Example 3c

$$i(3 - 2i)^2$$

Express in the form *a+bi*, where *a* and *b* are real numbers
Swok. Cole, P. 98, Example 4a

$$\frac{1}{9 + 2i}$$

Express in the form *a+bi*, where *a* and *b* are real numbers
Swok. Cole, P. 98, Example 4b

$$\frac{7-i}{3-5i}$$

Express in the form *a+bi*, where *a* and *b* are real numbers
Swok. Cole, P. 99, Example 5

$$(5-\sqrt{-9})(-1+\sqrt{-4})$$

Solve the equation (and make your steps as long and difficult as possible)
Swok. Cole, P. 108, #11

$$y^{\frac{3}{2}}=5y$$

Solve the equation (make your work count, but don't count on it working)
Swok. Cole, P. 108, #31

$$\sqrt{2\sqrt{3x+1}}=\sqrt{3x-5}$$

Solve the equation (show your work, though I bet it will SHOW YOU first)
Swok. Cole, P. 108, #33

$$\sqrt{1+4\sqrt{x}}=\sqrt{x}+1$$

Solve the equation (just f_ck_n' solve it, man)
Swok. Cole, P. 108, #35

$$x^4-25x^2+144=0$$

Solve the equation (and destroy it in the process)
Swok. Cole, P. 108, #45

$$\left(\frac{t}{t+1}\right)^2-\frac{2t}{t+1}-8=0$$

Solve for the specified variable
Swok. Cole, P. 108, #53

Period of a pendulum:

$$T=2\pi\sqrt{\frac{l}{2}} \text{ for } l$$

Solve for inequality; express solutions in terms of intervals when able
Swok. Cole, P. 118, #35

$$0 \leq 4 - \frac{1}{3}x < 2$$

Solve for inequality; express solutions in terms of intervals when able
Swok. Cole, P. 118, #63

$$\left| \frac{2 - 3x}{5} \right| \geq 2$$

Solve the equation
Swok. Cole, P. 127, #5

$$\frac{1}{\sqrt{x}} - 2 = \frac{1 - 2\sqrt{x}}{\sqrt{x}}$$

Solve the equation by completing the square
Swok. Cole, P. 127, #29

$$-\frac{1}{2} < \frac{2x + 3}{5} < \frac{3}{2}$$

Solve for the specified variable
Swok. Cole, P. 127, #48

Volume of a frustum cone:

$$V = \frac{1}{3}\pi h(r^2 + R^2 + rR) \text{ for } r$$

(We may need a separate sheet of paper.)
