

Name:

Math Academy 1

Date:

Practice Quiz 1-E

1. State true or false.

a)  $(2x)^3 = 8x^3$

b)  $\sqrt{x^2 + 9} = x + 3$

c)  $\sqrt{36x^2} = 6x$

d)  $3(2x)(5x) = 6x \cdot 15x$

e)  $\frac{25x+40}{5} = 5x + 8$

f)  $(x+5)^2 = x^2 + 25$

g)  $\frac{(9x)(6x)}{3} = (3x)(2x)$

h)  $10(x^2 - 3x + 2) = 10x^2 - 30x + 20$

2. Let  $p$  be the polynomial  $9x - \frac{5x^8}{6} + 12$ .

a) What is the leading coefficient? b) What type of polynomial is  $p$ ?

c) Write  $p$  in standard form.

d) Multiply  $p$  by 10.

3. Let  $f$  be the expression  $\frac{15 + 60x^3\sqrt{30x}}{45x^2 + 30x}$ .

a) List the terms of the numerator. b) Simplify  $f$ .

c) Multiply  $f$  by 3.

d) Divide  $f$  by 3.

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