6.V Worksheet

1) For each expression, identify any variable(s), coefficient(s), constant. Also, state the number of terms, and identify each term.

a) $3m - 7$ b) $x^2 - y - 2$ c) $5 - 2a^2 + b^3$ d) $-3mn^2p^5$

Variable(s): m x, y a, b m, n, p

Coefficient(s): 3 $1, -1$ $-2, 1$ -3

Constant: -7 -2 5 N/A

# of Terms: 2 3 3 1

List of terms: $3m, -7$ $x^2, -y, -2$ $5, -2a^2, b^3$ $-3mn^2p^5$

2a) In a basketball game, the Warriors scored *19x + 25y + 18z* points and the Thunder scored *22x + 24y + 21z* points. In these expressions, *x* is the value of a 3-pointer, *y* is a two-pointer, and *z* is a one-point free throw. How many points did each team score? Who won?

Warriors: $19x + 25y + 18z$

$19(3) + 25(2) + 18(1)$

$57 + 50 + 18$

125

Thunder: $22x + 24y + 21z$

$22(3) + 24(2) + 21(1)$

$66 + 48 + 21$

135

Thunder won

$135 - 125$

2b) Over the course of his career, Steve Nash scored this many points: *1685x + 4636y + 3060z*. How many total points did he score in his career?

$1685(3) + 4636(2) + 3060(1)$

$5055 + 9272 + 3060$

$= 17387$ career points!

3) Evaluate for *x = 2* and *y = -1*

a) $x^2 - 3y + 7$

$(2)^3 - 3(-1) + 7$

$4 - 3(-1) + 7$

$4 + 3 + 7$

14

b) $5y^2 - 2x^2 + 6y - x$

$5(-1)^2 - 2(2)^2 + 6(-1) - (2)$

$5(1) - 2(4) + 6(-1) - 2$

$5 - 8 - 6 - 2$

$-3 - 6 - 2$

$-9 - 2$

-11

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

$2(3(2)(-1) - (2)^3(-1)) + 4$

$2(3(2)(-1) - 8(-1)) + 4$

$2(-6 - (-8)) + 4$

$2(2) + 4$

$4 + 4$

8

d) $7xy^2 - 4x \div 3$

$7(2)(-1)^2 - 4(2) \div 3$

$7(2)(1) - 4(2) \div 3$

$14 - 8 \div 3$

$14 - 2.6$

$11.\overline{3}$