Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Joint Variation

____ 1. Which of the following shows the correct joint variation for the table?

j	h	a
–4	5	160
–2	6	96
–3	5	120
–4	4	128

a. $a = -8jh$
b. $h = -8ja$
c. $j = -9ha$
d. $j = -8ha$
e. $h = -9ja$
f. $a = -9jh$

____ 2. Which of the following shows the correct joint variation for the table?

r	u	b
–2	1	–10
–3	2	–30
–2	3	–30
–1	2	–10

a. $u = 6rb$
b. $r = 5ub$
c. $r = 6ub$
d. $b = 6ru$
e. $u = 5rb$
f. $b = 5ru$

3. What is the value for k in the equation $z = kac$?

a	c	z
4	4	144
6	5	270
5	6	270
6	5	270

4. In the equation $z = kxy$, $x = -8$, $k = 7$, and $z = 224$. If y remains the same, what is the value of z when x is –7?

5. In the equation $z = kxy$, $y = -2$, $z = -4$, and $x = 1$. If z remains the same, what is the value of x when y is –5?

___ 6. Which of the following shows the correct joint variation for the table?

s	c	t
–3	1	–15
–5	2	–50
–4	1	–20
–2	0	0

a. $c = 5st$
b. $s = 6ct$
c. $t = 6sc$
d. $t = 5sc$
e. $s = 5ct$
f. $c = 6st$

___ 7. Which of the following shows the correct joint variation for the table?

k	r	y
–1	–3	–6
–3	–4	–24
–1	–3	–6
0	–4	0

a. $y = -3kr$
b. $r = -3ky$
c. $k = -2ry$
d. $y = -2kr$
e. $r = -2ky$
f. $k = -3ry$

8. What is the value for k in the equation $c = kjq$?

q	c	j
5	–80	–4
4	–32	–2
5	–80	–4
4	–96	–6

9. In the equation $z = kxy$, $z = 56$, $y = 7$, and $k = 4$. If z remains the same, what is the value of x when y is 4?

10. In the equation $z = kxy$, $x = -9$, $k = -1$, and $z = -72$. If z remains the same, what is the value of y when x is –12?

Joint Variation
Answer Section

1. A
2. F
3. 9
4. 196
5. 3
6. D
7. D
8. 4
9. 1
10. –10