Alg 1 Sec 1-3A Name _____

Evaluate each expression if $a = 4$, $b = 6$, and $c = 8$.

10. $8b - a$ **11.** $2a + (b^2 \div 3)$ **12.** $\frac{b(9-c)}{a^2}$

Evaluate each expression if $g = 2$, $r = 3$, and $t = 11$.

30. $g + 6t$ **31.** $7 - gr$ **32.** $r^2 + (g^3 - 8)^5$

33. $(2t + 3g) \div 4$ **34.** $t^2 + 8rt + r^2$ **35.** $3g(g + r)^2 - 1$

Evaluate each expression if $a = 8$, $b = 4$, and $c = 16$.

49. $a^2bc - b^2$ **50.** $\frac{c^2}{b^2} + \frac{b^2}{a^2}$ **51.** $\frac{2b + 3c^2}{4a^2 - 2b}$

52. $\frac{3ab + c^2}{a}$ **53.** $\left(\frac{a}{b}\right)^2 - \frac{c}{a-b}$ **54.** $\frac{2a - b^2}{ab} + \frac{c-a}{b^2}$

Alg 1 Sec 1-3A Name Key

Evaluate each expression if $a = 4$, $b = 6$, and $c = 8$.

10. $8b - a$ $8(6) - 4$ (44)

11. $2a + (b^2 \div 3)$
$2(4) + (6^2 \div 3)$
$8 + (36 \div 3)$
12
(20)

12. $\frac{b(9-c)}{a^2}$ $\frac{6(9-8)}{4^2}$ $\frac{6}{16} = \left(\frac{3}{8}\right)$ or .375

Evaluate each expression if $g = 2$, $r = 3$, and $t = 11$.

30. $g + 6t$
$2 + 6(11)$
66
(68)

31. $7 - gr$
$7 - (2)(3)$
6
(1)

32. $r^2 + (g^3 - 8)^5$
$3^2 + (2^3 - 8)^5$
$9 + (8 - 8)^5$
0
(9)

33 $(2t + 3g) \div 4$
$[2(11) + 3(2)] \div 4$
$22 + 6$
$28 \div 4$
(7)

34. $t^2 + 8rt + r^2$
$11^2 + 8 \cdot 3 \cdot 11 + 3^2$
$121 + 264 + 9$
(394)

35. $3g(g + r)^2 - 1$
$3(2)(2+3)^2 - 1$
$6(5)^2 - 1$
25
(149)

Evaluate each expression if $a = 8$, $b = 4$, and $c = 16$.

49. $a^2bc - b^2$
$8^2 \cdot 4 \cdot 16 - 4^2$
$64 \cdot 4 \cdot 16 - 16$
$4096 - 16$
(4080)

50. $\frac{c^2}{b^2} + \frac{b^2}{a^2}$
$\frac{16^2}{4^2} + \frac{4^2}{8^2}$
$\frac{256}{16} + \frac{16}{64}$
$16 + \frac{1}{4}$
$16\frac{1}{4}$

51. $\frac{2b + 3c^2}{4a^2 - 2b}$ $\frac{2 \cdot 4 + 3 \cdot 16^2}{4 \cdot 8^2 - 2 \cdot 4}$
$8 + 3 \cdot 256$
$4 \cdot 64 - 8$
$256 - 8$
$\frac{776}{248} = (3.13)$

52. $\frac{3ab + c^2}{a}$
$\frac{3 \cdot 8 \cdot 4 + 16^2}{8}$
$\frac{96 + 256}{8}$ $\frac{352}{8}$
(44)

53. $\left(\frac{a}{b}\right)^2 - \frac{c}{a-b}$
$\left(\frac{8}{4}\right)^2 - \frac{16}{8-4}$
$4 - \frac{16}{4} =$
(0)

54. $\frac{2a - b^2}{ab} + \frac{c - a}{b^2}$
$\frac{2 \cdot 8 - 4^2}{8 \cdot 4} + \frac{16 - 8}{4^2}$
$\frac{16 - 16}{32} + \frac{8}{16}$
$\frac{0}{36} + \frac{1}{2}$
$\frac{1}{2}$