

Inv 1 Review for 1st LC

Date _____ Period _____

Simple: Solve each equation.

1) $21 - 8k = -8(4 + 8k) + 3k$

2) $31 + 7x = -2 - 2(-2x - 6)$

3) $7(k - 6) = -18 - k$

4) $-2 + 8x = 5(1 + 2x) + 7$

5) $1 - b + 2 = 3(-7b + 6) + 4(5 + 5b)$

6) $4(1 - 4x) = 2(6 - 4x)$

7) $6(x - 3) = 2(x - 3)$

8) $-5(a - 2) - 6(3 + a) = -8 - 11a$

Complex: Solve each equation for the indicated variable.

9) $g = b - \frac{c}{a}$, for a

10) $kx = vw$, for x

$$11) \frac{k}{x} = v - w, \text{ for } x$$

$$12) \frac{m}{a} = \frac{p}{n}, \text{ for } a$$

$$13) \frac{k}{a} = \frac{w}{v} + b, \text{ for } a$$

$$14) ma = b + np, \text{ for } a$$

$$15) u = v - w + xk, \text{ for } x$$

$$16) k + a = v + w - b, \text{ for } a$$

$$17) ga = \frac{a+b}{c}, \text{ for } a$$

$$18) u + kx = yx, \text{ for } x$$

$$19) u = kx + yx, \text{ for } x$$

$$20) z = \frac{a+b}{ma}, \text{ for } a$$

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Simple: Solve each equation.

1) $21 - 8k = -8(4 + 8k) + 3k$

 $\{-1\}$

2) $31 + 7x = -2 - 2(-2x - 6)$

 $\{-7\}$

3) $7(k - 6) = -18 - k$

 $\{3\}$

4) $-2 + 8x = 5(1 + 2x) + 7$

 $\{-7\}$

5) $1 - b + 2 = 3(-7b + 6) + 4(5 + 5b)$

No solution.

6) $4(1 - 4x) = 2(6 - 4x)$

 $\{-1\}$

7) $6(x - 3) = 2(x - 3)$

 $\{3\}$

8) $-5(a - 2) - 6(3 + a) = -8 - 11a$

 $\{\text{All real numbers.}\}$ **Complex: Solve each equation for the indicated variable.**

9) $g = b - \frac{c}{a}$, for a

$$a = \frac{c}{-g + b}$$

10) $kx = vw$, for x

$$x = \frac{vw}{k}$$

$$11) \frac{k}{x} = v - w, \text{ for } x$$

$$x = \frac{k}{v - w}$$

$$12) \frac{m}{a} = \frac{p}{n}, \text{ for } a$$

$$a = \frac{mn}{p}$$

$$13) \frac{k}{a} = \frac{w}{v} + b, \text{ for } a$$

$$a = \frac{kv}{bv + w}$$

$$14) ma = b + np, \text{ for } a$$

$$a = \frac{b + np}{m}$$

$$15) u = v - w + xk, \text{ for } x$$

$$x = \frac{u - v + w}{k}$$

$$16) k + a = v + w - b, \text{ for } a$$

$$a = -k + v + w - b$$

$$17) ga = \frac{a + b}{c}, \text{ for } a$$

$$a = \frac{b}{gc - 1}$$

$$18) u + kx = yx, \text{ for } x$$

$$x = \frac{u}{-k + y}$$

$$19) u = kx + yx, \text{ for } x$$

$$x = \frac{u}{k + y}$$

$$20) z = \frac{a + b}{ma}, \text{ for } a$$

$$a = \frac{b}{zm - 1}$$