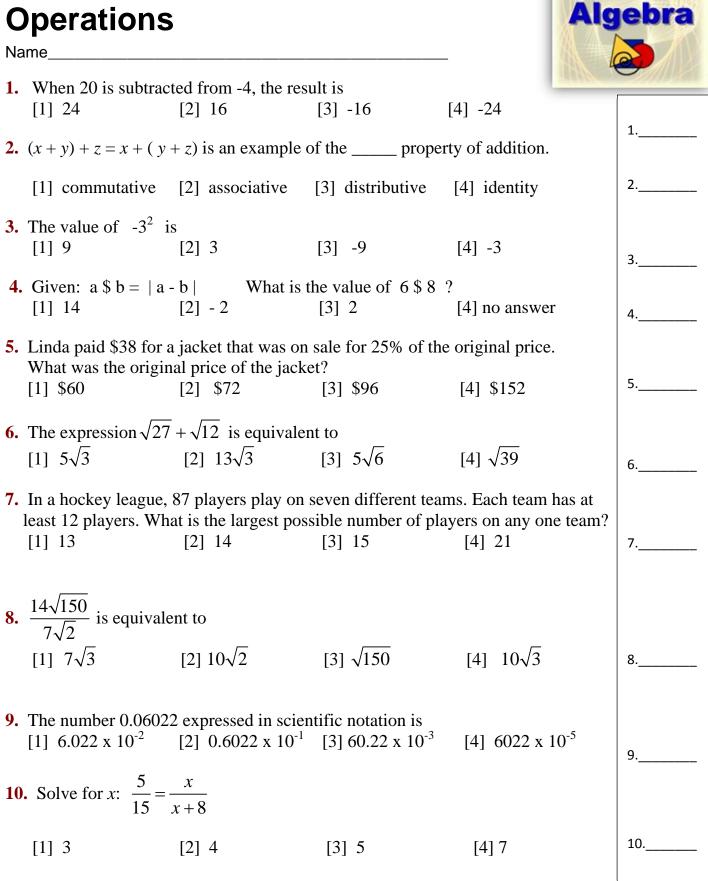
## **Operations**



11. The resistance $(R)$ of a copper wire, varies directly as its length $(L)$ . Write this relation as a formula using $k$ as the constant of variation.				
	[2]  R = kL	-	$[4]  L = \frac{k}{R}$	11
<b>12.</b> $(3x^3)^3$ is equivalent to				
[1] 27x <sup>9</sup>		[3] 9x <sup>9</sup>	[4] 9x <sup>6</sup>	12
<b>13.</b> If $x = -3$ and $y = 7$ , find the value of $x^2 y^3$ .				
	[2] 343		[4] -343	13
14. Daniel's Print Shop purchased a new printer for \$35,000. Each year it depreciates (loses value) at a rate of 5%. What will its approximate value be at the end of the fourth year?				
	[2] \$30,008.13	[3] \$28,507.72	[4] \$27,082.33	14
<b>15.</b> What is the quotient of $8.05 \times 10^6$ and $3.5 \times 10^2$ ?				
	[2] $2.3 \times 10^4$		[4] $2.3 \times 10^{12}$	15.
$1  \mathbf{T} \mathbf{h} = \mathbf{h} \mathbf{h} \mathbf{h} \mathbf{h} \mathbf{h} \mathbf{h} \mathbf{h} \mathbf{h}$	1) <b>I T</b> -			
<b>16.</b> The value of (9 - 4 [1] 5		[3] 60	[4] 120	16
<b>17</b> Simplify $ (9, 4)  +  2 $				
<b>17.</b> Simplify:  (8 - 4)  [1] 1		[3] 9	[4] 15	17
10 11	4 2 3			
<b>18.</b> The expression $2x$ [1] $6x^{12}$	$x^{-3}x^{-1}$ is equivalent to [2] $6x^{7}$		[4] $5x^7$	18
<b>19.</b> There are about 200 calories in 50 grams of Swiss cheese. Willie ate 70 grams				
of this cheese. About how many calories were in the cheese that he ate if the number of calories varies directly as the weight of the cheese.				
[1] 210	[2] 240	[3] 280	[4] 290	19
<b>20.</b> $(\sqrt{7} - 3)^2$ is equivalent to [1] $-2 - 6\sqrt{7}$ [2] $7 - 6\sqrt{7}$ [3] $9 - 6\sqrt{7}$ [4] $16 - 6\sqrt{7}$				
[1] $-2-6\sqrt{7}$	[2] $7 - 6\sqrt{7}$	[3] $9-6\sqrt{7}$	[4] $16 - 6\sqrt{7}$	20.