

## Summer Math Packet for Geometry

### The Spire School

For review of skills, visit

<https://www.khanacademy.org/>

<https://www.virtualnerd.com/>

<https://www.youtube.com/>

and simply put the topic on the left upper corner of the worksheet into the search engine.

**Evaluate the expression. Remember PEMDAS.**

1) $3x - 11x \cdot 2 - 2x$	2) $90x \div 5 - 10x \cdot 3 + 2x$
3) $54x \div 9 - 4x \cdot 2$	4) $4x + 10x \cdot 5 - 10x + 4x$

**Simplify. Remember Distributive Property and Combining Like Terms:**

5) $10 - 5(9n-9)$	6) $9a + 10(6a - 2)$
7) $5(-2n+4) + 2(n+3)$	8) $-7(n+3) - 8(1 + 8n)$

**Solve the equations.**

9) $2(x+5) = -2$	10) $\frac{x}{4} - 6 = 5$
11) $9x - 7 = -7$	12) $\frac{x}{3} + 2 = 6$

13) $12 = -4(-6x - 3)$	14) $2(4x - 3) - 8 = 4 + 2x$
15) $\frac{4}{3} = \frac{8}{x}$	16) $\frac{x-3}{6} = \frac{4}{9}$

Use properties of exponents to simplify:

17) $(4v^3)(vu^2)$	18) $(4a^3)^2$
19) $\frac{12x^4}{3x^3}$	20) $\frac{4x^0y^{-2}z^3}{4x^3}$

<p>21) Solve the system of equations by substitution:</p> $2x - 3y = -1$ $y = x - 1$	<p>22) Solve the system of equations by elimination:</p> $-4x - 2y = -12$ $4x + 8y = -24$
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**Solve the inequalities and make a number line to graph the solution.**

<b>23)</b> $-3 - 6(4x + 6) > -111$	<b>24)</b> $-138 \geq -6(6b - 7)$
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**Estimate the square roots, and then use your calculator to check your answer.**

<b>25)</b> $\sqrt{7}$	<b>26)</b> $\sqrt{2}$
<b>27)</b> $\sqrt{26}$	<b>28)</b> $\sqrt{40}$
<b>29)</b> $\sqrt{110}$	<b>30)</b> $\sqrt{150}$