## Algebra Think Dots Level 1

| a, b, c and d each represent a different value. <br> If $\mathrm{a}=2$, find $\mathrm{b}, \mathrm{c}$, and d . $\begin{aligned} & a+b=c \\ & a-c=d \\ & a+b=5 \end{aligned}$ | Explain the mathematical reasoning involved in solving card 1. | Explain in words what the equation $2 \mathrm{x}+4$ $=10$ means. <br> Solve the problem. |
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| Create an interesting word problem that is modeled by $8 \mathrm{x}-$ $2=7 x$. | Diagram how to solve $2 \mathrm{x}=8$ | Explain what changing the " 3 " in $3 x=9$ to a "2" does to the value of $x$. Why is this true? |

Think Dots Level 2

| a, b, c and d each represent a different value. <br> If $a=1$, find $b, c$, and $d$. $\begin{aligned} & a+b=c \\ & b-b=d \\ & c+a=-a \end{aligned}$ | Explain the mathematical reasoning involved in solving card 1. | Explain how a variable is used to solve word problem. |
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| Create an interesting word problem that is modeled by $2 x+4=4 x-10$ <br> Solve the problem. | Diagram how to solve $3 x+1=10$ | Explain why $x=4 \text { in } 2 x=8$ <br> but $x=16$ in $1 / 2 x=8$. <br> Why does this make sense? |

## Think Dots

## Title: Algebra level 2

## Algebra Think Dots Level 3

| a, b, c and d each represent a <br> different value. <br> If a = 4, find b, c, and d. <br> $\mathrm{a}+\mathrm{c}=\mathrm{b}$ <br> $\mathrm{b}-\mathrm{a}=\mathrm{c}$ <br> $\mathrm{cd}=-\mathrm{d}$ <br> $\mathrm{d}+\mathrm{d}=\mathrm{a}$ | Explain the mathematical reasoning <br> involved in solving <br> card 1. | Explain how a variable in mathematics. <br> Give examples. |
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| Create an interesting word <br> problem that is modeled by . <br> Solve the problem. | Diagram how to solve <br> $3 \mathrm{x}+4=\mathrm{x}+12$. | Given ax $=15$, explain how x is changes if <br> a is large or a is small in value. |
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