



Practice Problems

Use algebra to analyze each puzzle, in other words, choose a letter and describe what happens with each step. Check your work by using a number of your choice. See #1 as an example.

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| <p>1. (a) Choose any number. $\frac{n}{(10)}$</p> <p>(b) Double it. $\frac{2n}{(2 \times 10)}$</p> <p>(c) Add 6. $\frac{2n + 6}{(2 \times 10) + 6}$</p> <p>(d) Add the number you started with.
 $\frac{2n + 6 + n \text{ or } 3n + 6}{(2 \times 10) + 6 + 10 \text{ or } 3(10) + 6}$</p> <p>(e) Divide by 3. $\frac{3n + 6}{3} \text{ or } n + 2$
 $\frac{3(10) + 6}{3} \text{ or } 10 + 2$</p> <p>(f) Subtract 2. $\frac{n + 2 - 2 \text{ or } n}{10 + 2 - 2 \text{ or } 10}$</p> | <p>2. (a) Choose any number. _____</p> <p>(b) Triple it. _____</p> <p>(c) Add 8. _____</p> <p>(d) Add the number you started with.
 _____</p> <p>(e) Divide by 4. _____</p> <p>(f) Subtract 1. _____</p> |
| <p>3. (a) Choose any number. _____</p> <p>(b) Add 5. _____</p> <p>(c) Multiply by 5. _____</p> <p>(d) Subtract the number you started with.
 _____</p> <p>(e) Subtract 17. _____</p> <p>(f) Divide by 4. _____</p> | <p>4. (a) Write down your age. _____</p> <p>(b) Add how old you were 5 years ago.
 _____</p> <p>(c) Multiply by 5. _____</p> <p>(d) Add 5. _____</p> <p>(e) Divide by 10. _____</p> <p>(f) Add 1. _____</p> |
| <p>5. (a) Choose any number. _____</p> <p>(b) Add 7. _____</p> <p>(c) Multiply by 3. _____</p> <p>(d) Add the number you started with.
 _____</p> <p>(e) Subtract 1. _____</p> <p>(f) Divide by 4. _____</p> | <p>6. (a) Write down you approximate weight.
 _____</p> <p>(b) Multiply by 5. _____</p> <p>(c) Add 20. _____</p> <p>(d) Double the number you now have.
 _____</p> <p>(e) Divide by 10. _____</p> <p>(f) Subtract your weight. _____</p> |