**Repeating Decimal to Fraction Notes Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **STEPS** | **EXAMPLE 1** |
| **Let “x” represent your repeating decimal** | $$0.58\overline{3}$$ |
| **Determine two places where you can put your decimal so you have the same repeating decimal.** |  |
| **Set up two equations based on the previous step** |  |
| **Subtract on both sides of the equation** |  |
| **Solve for *x* by dividing** |  |
| **Simplify the fraction, if needed** |  |

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| **STEPS** | **EXAMPLE 2** |
| **Let “x” represent your repeating decimal** | $$0.\overline{81}$$ |
| **Determine two places where you can put your decimal so you have the same repeating decimal.** |  |
| **Set up two equations based on the previous step** |  |
| **Subtract on both sides of the equation** |  |
| **Solve for *x* by dividing** |  |
| **Simplify the fraction, if needed** |  |

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| **STEPS** | **EXAMPLE 3** |
| **Let “x” represent your repeating decimal** | $$0.12\overline{34}$$ |
| **Determine two places where you can put your decimal so you have the same repeating decimal.** |  |
| **Set up two equations based on the previous step** |  |
| **Subtract on both sides of the equation** |  |
| **Solve for *x* by dividing** |  |
| **Simplify the fraction, if needed** |  |

**PRACTICE on the BACK…**

**Practice:**

**1)** $0.\overline{5}$ **2)** $0.\overline{45}$

**3)** $0.1\overline{6}$ **4)** $0.0\overline{57}$