

Name:

## Classpractice 1

Period:

## Deconstructing Equations

1.  $5(20+d)=420 \rightarrow 5(d+20)=420$

Construct story of	Deconstruct	Solving Process	Verification
① Add 20 ② Mult by 5	① Divide by 5 ② Subt by 20  ↑ & inverse	$\frac{5(d+20)=420}{5 \quad \quad 5}$ $d+20=84$ $\begin{array}{r} -20 \\ -20 \end{array}$ $d=64$	$5(d+20)$ $5(64+20)$ $5(84)$ $420$

2.  $\frac{2x+2}{4}=7$

Construct story of	Deconstruct	Solving Process	Verification
① Mult by 2 ② Add 2 ③ Divide by 4	① Mult by 4 ② Subt 2 ③ Divide by 2	$4\left(\frac{2x+2}{4}\right)=7$ $2x+2=28$ $\begin{array}{r} -2 \\ -2 \end{array}$ $\frac{2x}{2}=\frac{26}{2}$ $x=13$	$\frac{2x+2}{4}$ $\frac{2(13)+2}{4}$ $\frac{26+2}{4}$ $\frac{28}{4}$ $7$

3.  $\frac{m-4}{5}=24$

Construct story of	Deconstruct	Solving Process	Verification
① Subt 4 ② Divide by 5	① Mult by 5 ② Add 4	$5\left(\frac{m-4}{5}\right)=24$ $m-4=120$ $\begin{array}{r} +4 \\ +4 \end{array}$ $m=124$	$\frac{124-4}{5}$ $\frac{120}{5}$ $24$



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4.  $\frac{n+3}{8} = -6$

Construct story of	Deconstruct	Solving Process	Verification
① Add 3 ② Divide 8	① Mult 8 ② Subt 3	$8\left(\frac{n+3}{8}\right) = 8(-6)$ $n+3 = -48$ $-3 \quad -3$ $n = -51$	$\frac{-51+3}{8}$ $\frac{-48}{8}$ $-6$

5.  $-5(b+9) = -20$

Construct story of	Deconstruct	Solving Process	Verification
① Add 9 ② Mult by -5	① Divide by -5 ② Subt 9	$\frac{-5(b+9)}{-5} = \frac{-20}{-5}$ $b+9 = 4$ $-9 \quad -9$ $b = -5$	$\frac{-5(-5+9)}{-5}$ $\frac{-5(4)}{-5}$ $-20$

6.  $3 - \frac{x+7}{3} = 9 \rightarrow \frac{x+7}{-3} + 3 = 9$

Construct story of	Deconstruct	Solving Process	Verification
① Add 7 ② Divide by -3 ③ Add 3	① Subt 3 ② Mult by -3 ③ Subt 7	$\frac{x+7}{-3} + 3 = 9$ $\frac{x+7}{-3} = 6$ $3\left(\frac{x+7}{-3}\right) = 3(6)$ $x+7 = -18$ $-7 \quad -7$ $x = -25$	$\frac{-25+7}{-3} + 3$ $\frac{-18}{-3} + 3$ $6+3$ $9$



Name:

## Class Practice 2

Period:

## Deconstructing Equations

1.  $3 + 4a = 6 \rightarrow 4a + 3 = 6$

Construct story of	Deconstruct	Solving Process	Verification
① Mult by 4 ② Add 3	① Subt 3 ② Divide by 4	$  \begin{array}{r}  4a + 3 = 6 \\  -3 \quad -3 \\  \hline  4a = 3 \\  \frac{4a}{4} = \frac{3}{4} \\  a = \frac{3}{4}  \end{array}  $	$  \begin{array}{r}  4\left(\frac{3}{4}\right) + 3 \\  3 + 3 \\  6  \end{array}  $

2.  $\frac{4}{3} + 2x = 17 \rightarrow 2x + \frac{4}{3} = 17$

Construct story of	Deconstruct	Solving Process	Verification
① Mult by 2 ② Add $\frac{4}{3}$	① Subt $\frac{4}{3}$ ② Divide by 2	$  \begin{array}{r}  2x + \frac{4}{3} = 17 \\  -\frac{4}{3} \quad -\frac{4}{3} \\  \hline  2x = \frac{51}{3} - \frac{4}{3} \\  2x = \frac{47}{3} \\  \frac{2x}{2} = \frac{\frac{47}{3}}{2} \\  x = \frac{47}{6}  \end{array}  $	$  \begin{array}{r}  2\left(\frac{47}{6}\right) + \frac{4}{3} \\  \frac{47}{3} + \frac{4}{3} \\  17  \end{array}  $

3.  $3(2+x) - 1 = 11 \rightarrow 3(x+2) - 1 = 11$

Construct story of	Deconstruct	Solving Process	Verification
① Add 2 ② Mult by 3 ③ Subt 1	① Add 1 ② Divide by 3 ③ Subt 2	$  \begin{array}{r}  3(x+2) - 1 = 11 \\  +1 \quad +1 \\  \hline  3(x+2) = 12 \\  \frac{3(x+2)}{3} = \frac{12}{3} \\  x+2 = 4 \\  -2 \quad -2 \\  \hline  x = 2  \end{array}  $	$  \begin{array}{r}  3(2+2) - 1 \\  3(4) - 1 \\  12 - 1 \\  11  \end{array}  $



# Class Practice 2

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4.  $-12 + 4x = -4 \rightarrow 4x - 12 = -4$

Construct story of	Deconstruct	Solving Process	Verification
① Mult by 4 ② Subt 12	① Add 12 ② Divide by 4	$  \begin{array}{r}  4x - 12 = -4 \\  +12 \quad +12 \\  \hline  4x = 8 \\  \frac{4x}{4} = \frac{8}{4} \\  x = 2  \end{array}  $	$  \begin{array}{r}  4(2) - 12 \\  8 - 12 \\  -4  \end{array}  $

5.  $-12 - 6x = -15 \rightarrow -6x - 12 = -15$

Construct story of	Deconstruct	Solving Process	Verification
① Mult by -6 ② Subt 12	① Add 12 ② Divide by -6	$  \begin{array}{r}  -6x - 12 = -15 \\  +12 \quad +12 \\  \hline  -6x = -3 \\  \frac{-6x}{-6} = \frac{-3}{-6} \\  x = \frac{1}{2}  \end{array}  $	$  \begin{array}{r}  -6(\frac{1}{2}) - 12 \\  -3 - 12 \\  -15  \end{array}  $

6.  $8 - 10x = 3 \rightarrow -10x + 8 = 3$

Construct story of	Deconstruct	Solving Process	Verification
① Mult by -10 ② Add 8	① Subt 8 ② Divide by -10	$  \begin{array}{r}  -10x + 8 = 3 \\  -8 \quad -8 \\  \hline  -10x = -5 \\  \frac{-10x}{-10} = \frac{-5}{-10} \\  x = \frac{1}{2}  \end{array}  $	$  \begin{array}{r}  -10(\frac{1}{2}) + 8 \\  -5 + 8 \\  3  \end{array}  $