

$$2 \left| 3 + 8v \right| + 6 = 4v - 10$$

$$\frac{2 \left| 3 + 8v \right|}{2} = \frac{4v - 16}{2}$$

$$\begin{array}{r} 3 + 8v = 2v - 8 \\ -3 \quad -3 \end{array}$$

$$\begin{array}{r} 8v = 2v - 11 \\ -2v \quad -2v \end{array}$$

$$\frac{6v}{6} = \frac{-11}{6}$$

$$\boxed{v = \frac{-11}{6}}$$

$$2v - 8$$

$$2\left(\frac{-11}{6}\right) - 8$$

⊖

$$\left| 3 + 8v \right| = 2v - 8$$

$$2v - 8 \geq 0 \quad \underline{\text{Not negative}}$$

$$3 + 8v = -(2v - 8)$$

$$\begin{array}{r} 3 + 8v = -2v + 8 \\ -3 \quad -3 \end{array}$$

$$\begin{array}{r} 8v = -2v + 5 \\ +2v \quad +2v \end{array}$$

$$\frac{10v}{10} = \frac{5}{10}$$

$$\boxed{v = \frac{1}{2}}$$

No solution

$$2v - 8$$

$$2\left(\frac{1}{2}\right) - 8$$

$$1 - 8 = -7$$

⊖

2.)  $\left| 9x - 9 \right| + 7 = 70$

$$\left| 9x - 9 \right| = 63$$

no variable,  
no check

$$9x - 9 = 63$$

$$+9 \quad +9$$

$$9x = 72$$

$$\frac{9x}{9} = \frac{72}{9}$$

$$\boxed{x = 8}$$

$$9x - 9 = -63$$

$$+9 \quad +9$$

$$\frac{9x}{9} = \frac{-54}{9}$$

$$\boxed{x = -6}$$

3.)  $6 \left| 6 - 10m \right| + 8 = 6m - 88$

$$\frac{6 \left| 6 - 10m \right|}{6} = \frac{6m - 96}{6}$$

$$\left| 6 - 10m \right| = m - 16$$

$$6 - 10m = m - 16$$

$$\begin{array}{r} -10m = m - 22 \\ -m \quad -m \end{array}$$

$$\frac{-11m}{-11} = \frac{-22}{-11}$$

$$\boxed{m = 2}$$

$$m - 16$$

$$2 - 16$$

-14 ⊖

$$6 - 10m = -m + 16$$

$$\begin{array}{r} -10m = -m + 10 \\ +m \quad +m \end{array}$$

$$\frac{-9m}{-9} = \frac{10}{-9} \quad \boxed{m = \frac{-10}{9}}$$

$$m - 16$$

$$\frac{-10}{9} - 16$$

No Solution

⊖

$$-4 + \underbrace{|-7p-3|}_{+4} \leq \underbrace{62}_{+4}$$

$$|-7p-3| \leq 66$$

flip inequality and  
change the sign

$$-7p-3 \leq 66$$

+3    +3

$$\frac{-7p}{-7} \leq \frac{69}{-7}$$

$$p \geq -\frac{69}{7}$$

$$-7p-3 \geq -66$$

+3    +3

$$\frac{-7p}{-7} \geq \frac{-63}{-7}$$

$$p \leq 9$$



$$\geq -3$$

all solutions  
TR



$$\leq -3$$

no solution

Candy

Reese's 24

Crunch 8

Hershey 12

Twix 16

Kit kat 20

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80

$$P(\text{Twix}) = \frac{16 \div 16}{80 \div 16} = \boxed{\frac{1}{5}}$$

$$P(\text{Reese's}) = \frac{24 \div 8}{80 \div 8} = \boxed{\frac{3}{10}}$$

$$\frac{\text{Desired \#}}{\text{Total \#}} \} \text{Probability}$$

P(Hershey or Crunch)

$$\frac{12 + 8}{80} = \frac{20 \div 20}{80 \div 20} = \boxed{\frac{1}{4}}$$

Candy

Reese's 24

Crunch 8

Hershey 12

Twix 16

Kit kat 20

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80

$$P(\text{Twizzlers}) = 0$$

P(Twix and then kitkat)  
with replacement

$$P(\text{Twix}) = \frac{16}{80} = \frac{1}{5}$$

$$P(\text{kitkat}) = \frac{20}{80} = \frac{1}{4}$$

} independent events

P(Twix and then kitkat)  
w/ replacement =

$$P(\text{Twix}) * P(\text{kit kat})$$

$$\frac{1}{5} * \frac{1}{4} = \boxed{\frac{1}{20}}$$

# Candy

Reese's	24
Crunch	8
Hershey	12
Twix	16
Kit kat	20
<hr/>	
	80

$P(\text{Reese's and then Crunch})$   
without replacement

$$P(\text{Reese's}) = \frac{24 \div 8}{80 \div 8} = \frac{3}{10}$$

$$P(\text{Crunch}) = \frac{8}{79}$$

$$\frac{3}{10 \div 2} * \frac{8 \div 2}{79} = \frac{3}{5} * \frac{4}{79} = \boxed{\frac{12}{395}}$$

$P(\text{Twix and then a twix})$   
without replacement

$$P(\text{Twix}) = \frac{16}{80}$$

$$P(\text{2nd twix}) = \frac{15}{79}$$

$$\frac{16 \div 16}{80 \div 16} * \frac{15}{79}$$

$$\frac{1}{5 \div 5} * \frac{15 \div 5}{79} = \frac{1}{1} * \frac{3}{79} = \boxed{\frac{3}{79}}$$