Basic Two-step Equations with Unknown on One Side

Date:

Name:

Through your working, show how you are keeping the equation balanced as you solve for the variable. Round to 1 d.p. if necessary.

[1]

$$12m + 16 = 64$$

[2]

$$\frac{f}{6} + 15 = 18$$

[3]

$$83 = 7m + 13$$

[4]

$$7m - 16 = 26$$

[5]

$$4m - 21 = 59$$

[6]

$$132 = 8m - 20$$

[7]

$$-8m + 13 = -11$$

[8]

$$\frac{c}{4} - 11 = -4$$

[9]

$$-1 = -9m + 17$$

[10]

$$8m - 15 = -143$$

[11]

$$8m - 13 = -149$$

[12]

$$115 = 6m - 17$$

Through your working, show how you are keeping the equation balanced as you solve
for the variable. Round to 1 d.p. if necessary.

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[1]
$$12m + 16 = 64$$
$$-16 \qquad -16$$
$$12m = 48$$
$$\div 12 \qquad \div 12$$
$$\boxed{m = 4}$$

[2]
$$\frac{f}{6} + 15 = 18$$
$$-15 \qquad -15$$
$$\frac{f}{6} = 3$$
$$\times 6 \qquad \times 6$$
$$\boxed{f = 18}$$

[3]
$$83 = 7m + 13$$
$$-13 \qquad -13$$
$$70 = 7m$$
$$\div 7 \qquad \div 7$$
$$10 = m$$
$$\boxed{m = 10}$$

[4]
$$7m - 16 = 26$$
$$+16 \qquad +16$$
$$7m = 42$$
$$\div 7 \qquad \div 7$$
$$\boxed{m = 6}$$

[5]
$$4m - 21 = 59$$
$$+21 \qquad +21$$
$$4m = 80$$
$$\div 4 \qquad \div 4$$
$$\boxed{m = 20}$$

[6]
$$132 = 8m - 20$$
$$+20 \qquad +20$$
$$152 = 8m$$
$$\div 8 \qquad \div 8$$
$$19 = m$$
$$\boxed{m = 19}$$

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[7]

$$-8m + 13 = -11$$
$$-13 \qquad -13$$
$$-8m = -24$$
$$\div -8 \qquad \div -8$$

$$m = 3$$

[8]

$$\frac{c}{4} - 11 = -4$$
$$+11 \qquad +11$$
$$\frac{c}{4} = 7$$
$$\times 4 \qquad \times 4$$

$$c = 28$$

[9]

$$-1 = -9m + 17$$
$$-17 \qquad -17$$
$$-18 = -9m$$
$$\div -9 \qquad \div -9$$
$$2 = m$$

$$m = 2$$

[10]

$$8m - 15 = -143$$
$$+15 \qquad +15$$
$$8m = -128$$
$$\div 8 \qquad \div 8$$

$$m = -16$$

[11]

$$8m - 13 = -149$$
$$+13 \qquad +13$$
$$8m = -136$$
$$\div 8 \qquad \div 8$$

$$m = -17$$

[12]

$$115 = 6m - 17$$
$$+17 \qquad +17$$
$$132 = 6m$$
$$\div 6 \qquad \div 6$$
$$22 = m$$

$$m = 22$$