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1) $150 * 92 \pmod{14}$

$$\frac{150}{14} = 10 = r$$

$$\frac{92}{14}$$

$$92 - 84 = 8 = r$$

$$(8 \cdot 10) \pmod{14}$$

$$80 \pmod{14} = 10$$

$$\frac{80}{14} = 5 \text{ R } 10$$

$$150 * 92 \pmod{14} = 10$$

$$150 \pmod{14} = 10$$

$$92 \pmod{14} = 8$$

$$\begin{array}{r} 150 \cdot 92 \\ 13,800 \\ 13,790 \\ \hline 10 \end{array}$$

$$14 \cdot 985$$

2) $6(4/11) \pmod{14}$

$$6 \pmod{14} = 6$$

$$4 \pmod{14} = 4$$

$$11 \pmod{14} = 11$$

$$11^{-1} \pmod{14} = 9$$

$$4 * 9 = 36 \pmod{14} = 8$$

$$\frac{36}{14} = 2 \text{ R } 8$$

$$6 * 8 \pmod{14} =$$

$$48 \pmod{14} = 6$$

$$\frac{48}{14} = 3 \text{ R } 6$$

$$6 \pmod{14}$$

$$11 \cdot 9 = 99 \pmod{14} = 1$$

$$99$$

$$14 \cdot 7 = 98$$

$$1$$

3) $24/17 \pmod{14}$

$$24 \pmod{14} = 10$$

$$\frac{24}{14} = 1 \text{ R } 10$$

$$17 \pmod{14} = 3$$

$$17$$

$$14$$

$$10 \cdot 3^{-1} \pmod{14} = 5$$

$$10 \cdot 5 \pmod{14}$$

$$5 \pmod{14}$$

$$3 \cdot 5 = 15 \pmod{14}$$

$$50 \pmod{14}$$

$$15$$

$$42$$

$$3 \pmod{14}$$