

$$1. a) 7 - 12 = \boxed{-5}$$

$$b) 4^2 = \boxed{16}$$

$$c) 7 - 2 \cdot 3 : \\ = 7 - 6 \\ = \boxed{1}$$

$$d) 4 \cdot (7 - 2) \\ = 4 \cdot 5 \\ = \boxed{20}$$

$$e) 6 - 8/2 \\ = 6 - 4 \\ = \boxed{2}$$

$$2. a) xy - z \\ = 2 \cdot (-12) - 4 \\ = -24 - 4 \\ = \boxed{-28}$$

$$3. a) \boxed{0,5 > 0,4}$$

$$b) \boxed{0,415 < 0,5}$$

$$c) \boxed{3,131000 \neq 3,131}$$

$$4. a) \begin{array}{r} 3.4 \\ + 5.2 \\ \hline 8.6 \end{array}$$

$$b) \begin{array}{r} 3.815 \\ + 2.400 \\ \hline 6.215 \end{array}$$

$$c) \begin{array}{r} 89.16 \\ - 3.7 \\ \hline 85.46 \end{array}$$

$$d) \begin{array}{r} 3.85 \\ 4 \overline{) 15.40} \\ \underline{- 12} \\ 34 \\ \underline{- 32} \\ 20 \end{array}$$

$$5. \quad xy \\ = (1.6)(-4.2)$$

$$\begin{array}{r} 4.2 \\ 1.6 \\ \hline 252 \\ 920 \\ \hline -6.72 \end{array}$$

$$6. a) 54000 = 5.4 \times 10^3$$

$$b) 514 = 5.14 \times 10^2$$

$$c) 0.0054 = 5.4 \times 10^{-3}$$

$$7. a) 6.7 \times 10^3 = 6700$$

$$b) 5.14 \times 10^{-3} = 0.00514$$

$$8. a) \frac{1}{5} + \frac{3}{5} = \boxed{\frac{4}{5}}$$

$$b) \frac{5}{5} \cdot \frac{1}{4} + \frac{1}{5} \cdot \frac{4}{4} \\ = \frac{5}{20} + \frac{4}{20} \\ = \boxed{\frac{9}{20}}$$

$$c) \frac{4}{4} \cdot \frac{7}{3} - \frac{3}{9} \cdot \frac{3}{3}$$

$$= \frac{28}{12} - \frac{9}{9} \\ = \boxed{\frac{19}{12}} \text{ or } \boxed{1\frac{7}{12}}$$

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$$9. a) \boxed{\frac{2}{7} > \frac{1}{7}}$$

$$b) \boxed{\frac{8}{9} < \frac{2}{9}}$$

$$c) \boxed{\frac{3}{5} > \frac{4}{7}}$$

$$\frac{7}{7} \cdot \frac{3}{5}$$

$$\frac{4}{7} \cdot \frac{5}{5}$$

$$\frac{21}{35} > \frac{20}{35}$$

$$10. a) \frac{3}{6} = \boxed{\frac{1}{2}}$$

$$b) \frac{10}{18} = \frac{2 \cdot 5}{2 \cdot 9} = \boxed{\frac{5}{9}}$$

$$c) \frac{10 \cancel{x^2}}{18 \cancel{x^2}} = \frac{105}{9 \cancel{x^2}} = \boxed{\frac{5}{9 \cancel{x^2}}}$$

$$11. \begin{array}{r} 0.42857142 \dots \\ 7 \overline{) 3.00000000} \\ \underline{-28} \\ 20 \\ \underline{-14} \\ 60 \\ \underline{-56} \\ 40 \\ \underline{-35} \\ 50 \\ \underline{-49} \\ 10 \\ \underline{-7} \\ 30 \\ \underline{-28} \\ 20 \end{array}$$

$$0.\overline{428571}$$

$$12. \quad 0.73 = \boxed{\frac{73}{100}}$$

ps (4)

$$13. \quad a) \frac{3}{7} \cdot \frac{4}{5} = \boxed{\frac{12}{35}} \quad b) \frac{4}{5} \div \frac{1}{3} = \frac{4}{5} \cdot \frac{3}{1} = \boxed{\frac{12}{5}}$$

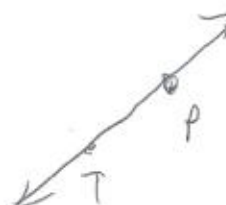
14. a)



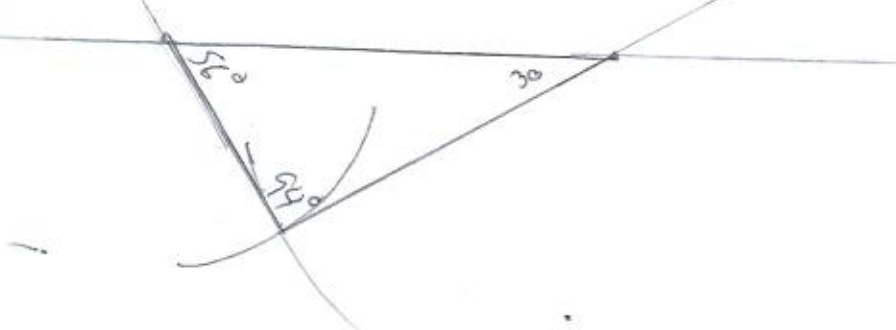
b)



c)



15.



$$16. \quad \frac{1}{360} \cdot 24,000 = \frac{24000}{360} = \frac{200}{3} \approx \boxed{67 \text{ miles}}$$

17. Supplementary angles add to 180°

18. a)



b) $\boxed{16}$

c) $\boxed{0}$

19.



$$20. \quad m\angle CAD + m\angle BAC = m\angle BAD$$

$$m\angle CAD + 32^\circ = 63^\circ$$

$$\quad \quad \quad - 32^\circ \quad \quad - 32^\circ$$

$$\boxed{m\angle CAD = 31^\circ}$$