

Practice Assessment unit 3

$$\# -46 > -58$$

$$\# -|-7| \quad |-8|$$

$$-7 > -8$$

$$30a) -17 - (-43)$$

$$= -17 + 43$$

$$= 26$$

$$30b) 19 + (-35)$$

$$= 19 - 35$$

$$= -16$$

$$31a) -\frac{4}{3} - (-\frac{1}{2})$$

$$= -\frac{4}{3} + \frac{1}{2}$$

$$= -\frac{8}{6} + \frac{3}{6}$$

$$= -\frac{5}{6}$$

$$31b) -\frac{3}{4} + (-\frac{1}{6})$$

$$= -\frac{3}{4} - \frac{1}{6}$$

$$= -\frac{9}{12} - \frac{2}{12}$$

$$= -\frac{11}{12}$$

$$32a) -8 - (-12) + (-20)$$

$$= -8 + 12 - 20$$

$$= 4 - 20$$

$$= -16$$

$$32b) -8 - (-12) - (-20)$$

$$= -8 + 12 + 20$$

$$= 4 + 20$$

$$= 24$$

$$33a) -8 - |-12| - (-20)$$

$$= -8 - 12 + 20$$

$$= -20 + 20$$

$$= 0$$

$$33b) -8 - (-12) - |-20|$$

$$= -8 + 12 - 20$$

$$= 4 - 20$$

$$= -16$$

$$\# \quad \frac{5}{21} - \frac{14}{15}$$

$$= \frac{25}{105} - \frac{98}{105}$$

$$= -\frac{73}{105}$$

$$\# \quad \frac{5}{21} \left(-\frac{14}{15} \right)$$

$$= -\frac{5}{21} \cdot \frac{14}{15}$$

$$= -\frac{\cancel{5} \cdot \cancel{7} \cdot 2}{\cancel{3} \cdot \cancel{7} \cdot \cancel{3} \cdot 5}$$

$$= -\frac{2}{9}$$

$$\begin{aligned}
 12) & \left(-\frac{9}{10}\right)\left(-\frac{7}{4}\right) \\
 &= \frac{3 \cdot 3 \cdot 7}{2 \cdot 5 \cdot 2 \cdot 2} \\
 &= \frac{63}{40}
 \end{aligned}$$

$$\begin{aligned}
 24) & \frac{49}{24} \left(-\frac{6}{7}\right) \\
 &= -\frac{\cancel{7} \cdot \cancel{7} \cdot \cancel{2} \cdot \cancel{3}}{2 \cdot 2 \cdot \cancel{2} \cdot \cancel{3} \cdot \cancel{7}} \\
 &= -\frac{7}{4}
 \end{aligned}$$

$$\begin{aligned}
 32) & -\frac{\cancel{6} \cancel{c} \cancel{d}}{7} \cdot \frac{1}{\cancel{18} \cancel{d} \cancel{3}} \\
 &= -\frac{c}{21}
 \end{aligned}$$

$$\begin{aligned}
 36) & \left(-\frac{15p^4}{t^2}\right)\left(-\frac{t^3}{3p}\right) \\
 &= \frac{\cancel{3} \cdot 5 \cdot \cancel{p} \cdot \cancel{p} \cdot \cancel{p} \cdot \cancel{p} \cdot t \cdot t \cdot t}{\cancel{t} \cdot \cancel{t} \cdot \cancel{3} \cdot \cancel{p}} \\
 &= 5p^3t
 \end{aligned}$$

$$\begin{aligned}
 64) & \left(-\frac{8}{7}\right) \div \left(-\frac{10}{3}\right) \\
 &= -\frac{8}{7} \cdot \left(-\frac{3}{10}\right) \\
 &= \frac{\cancel{2} \cdot \cancel{2} \cdot \cancel{2} \cdot 3}{7 \cdot \cancel{2} \cdot 5} \\
 &= \frac{12}{35}
 \end{aligned}$$

$$\begin{aligned}
 67) & \frac{15}{2} \div \left(-\frac{3}{2}\right) \\
 &= \frac{15}{2} \cdot \left(-\frac{2}{3}\right) \\
 &= -\frac{\cancel{3} \cdot 5 \cdot \cancel{2}}{\cancel{2} \cdot \cancel{3}} \\
 &= -5
 \end{aligned}$$

$$\begin{aligned}
 79) & \frac{-20c^3}{d^2} \div \frac{5c}{d^3} \\
 &= \frac{-20c^3}{d^2} \cdot \frac{d^3}{5c} \\
 &= -\frac{\cancel{2} \cdot \cancel{2} \cdot \cancel{5} \cdot \cancel{c} \cdot c \cdot c \cdot d \cdot \cancel{d} \cdot \cancel{d}}{\cancel{d} \cdot \cancel{d} \cdot \cancel{5} \cdot \cancel{c}} \\
 &= -4c^2d
 \end{aligned}$$

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$$\# \frac{8}{9} \left(-\frac{27}{4} \right)$$

$$= -\frac{\cancel{2} \cdot \cancel{7} \cdot 3 \cdot \cancel{3} \cdot \cancel{3}}{\cancel{3} \cdot \cancel{3} \cdot \cancel{2} \cdot \cancel{2}}$$

$$= -6$$

$$34b) -\frac{14}{15} \left(\frac{5}{21} \right)$$

$$= -\frac{\cancel{2} \cdot \cancel{7} \cdot \cancel{5}}{\cancel{3} \cdot \cancel{5} \cdot \cancel{3} \cdot \cancel{7}}$$

$$= -\frac{2}{9}$$

$$35a) \frac{3}{7} \div \left(-\frac{9}{28} \right)$$

$$= \frac{3}{7} \cdot \left(-\frac{28}{9} \right)$$

$$= -\frac{\cancel{3} \cdot \cancel{2} \cdot \cancel{2} \cdot \cancel{7}}{\cancel{7} \cdot \cancel{3} \cdot \cancel{3}}$$

$$= -\frac{4}{3}$$

$$35b) -\frac{20}{3} \div \left(-\frac{5}{21} \right)$$

$$= -\frac{20}{3} \cdot \left(-\frac{21}{5} \right)$$

$$= \frac{\cancel{2} \cdot \cancel{2} \cdot \cancel{5} \cdot \cancel{3} \cdot \cancel{7}}{\cancel{3} \cdot \cancel{5}}$$

$$= 28$$

$$36a) \frac{-1.26}{0.3} = -4.2$$

$$36b) \frac{-0.825}{-6} = 0.1375$$