

Station A

Evaluate. Show all steps.

1. $-(-7) - (-2)^0$

2. $-3(2-4)^2 + 5(-2)$

3. $\frac{6 - 2(4 - 7)}{3 - 1(4 - 2(-1))}$

4. $\frac{2(-1-3) - 2^2 \times 6}{[18 - (-4) \div 2] \div (-5)}$

$$\begin{array}{lll} \textcircled{1} -(-7) - (-2)^0 & \textcircled{2} -3(2-4)^2 + 5(-2) & \textcircled{3} \frac{6-2(4-7)}{3-1(4-2(-1))} \\ = 7 - 1 & = -3(-2)^2 - 10 & = \frac{6-2(-3)}{3-1(4+2)} \\ = 6 & = -3(4) - 10 & = \frac{6+6}{3-(6)} \\ & = -12 - 10 & = \frac{6+6}{3-(6)} \\ & = -22 & \end{array}$$

$$\begin{array}{l} \textcircled{4} \frac{2(-1-3) - 2^2 \times 6}{[18 - (-4) \div 2] \div (-5)} \\ = \frac{2(-4) - 4 \times 6}{[18 - (-2)] \div (-5)} \\ = \frac{-8 - 24}{[20] \div (-5)} \\ = \frac{-32}{-4} = 8 \end{array}$$

$$\begin{array}{l} = \frac{12}{-3} \\ = -4 \end{array}$$

Station B

1. Circle the bigger fraction.

a) $\left(\frac{3}{5}\right)$ or $\frac{3}{8}$

b) $\frac{7}{5}$ or $\left(\frac{7}{4}\right)$

c) $\frac{-2}{5}$ or $\left(\frac{-2}{7}\right)$
Closely to 0.

d) $\left(\frac{-5}{11}\right)$ or $\frac{-7}{11}$
Closely to 0.

2. Order these sets of fractions from least to greatest by using equivalent fractions.

a. $\frac{3}{4}, \frac{1}{2}, \frac{4}{5}, \frac{3}{10}$

$\therefore \frac{3}{10}, \frac{1}{2}, \frac{3}{4}, \frac{4}{5}$

$\frac{15}{20}, \frac{10}{20}, \frac{16}{20}, \frac{6}{20}$

b. $\frac{-5}{6}, \frac{-2}{3}, \frac{-3}{4}, \frac{-1}{2}$

$\therefore \frac{-5}{6}, \frac{-3}{4}, \frac{-2}{3}, \frac{-1}{2}$

$\frac{-10}{12}, \frac{-8}{12}, \frac{-9}{12}, \frac{-6}{12}$

Station C

1. Write each number as a reduced fraction

a) $0.85 = \frac{85}{100} = \frac{17}{20}$ b) $-0.435 = \frac{-435}{1000} = \frac{-87}{200}$ c) $3.7 = 3\frac{7}{10}$

d) $3.\overline{87} = 3\frac{87}{99} = 3\frac{29}{33}$ e) $-2.\overline{4} = -2\frac{4}{9} = -2\frac{4}{9}$ f) $0.\overline{674} = \frac{674}{999}$

2. Complete the table.

Percent	Decimal	Fraction
45%	0.45	$\frac{45}{100} = \frac{9}{20}$
28%	0.28	$\frac{28}{100} = \frac{7}{25}$
75%	0.75	$\frac{3}{4}$
3%	0.03	$\frac{3}{100}$
130%	1.3	$\frac{130}{100} = \frac{13}{10}$ or $1\frac{3}{10}$
62.5%	0.625	$\frac{5}{8}$

Station D

Evaluate.

$$1. \quad \left(\frac{-2}{5}\right)^2 - \frac{1}{5} \quad \begin{array}{l} \rightarrow = \frac{4}{25} - \frac{1}{5} \\ = \frac{4}{25} - \frac{5}{25} \\ = \frac{-1}{25} \end{array}$$

$$2. \quad \frac{-4}{7} \div \left(\frac{-12}{7}\right) - \left(\frac{-1}{3}\right) \quad \begin{array}{l} \rightarrow = \frac{-4}{7} \cdot \left(\frac{-7}{12}\right) - \left(-\frac{1}{3}\right) \\ = \frac{1}{3} + \frac{1}{3} \\ = \frac{2}{3} \end{array}$$

$$3. \quad 4\frac{1}{3} - \left(2\frac{3}{4} - 5\frac{1}{2}\right) \quad \begin{array}{l} \rightarrow = \frac{13}{3} - \left(\frac{11}{4} - \frac{11}{2}\right) \\ = \frac{13}{3} - \left(\frac{11}{4} - \frac{22}{4}\right) \\ = \frac{13}{3} - \left(-\frac{11}{4}\right) \\ = \frac{52}{12} + \frac{33}{12} \\ = \frac{85}{12} \end{array}$$

$$4. \quad 3\frac{1}{2} - \left(2\frac{5}{6} \div 1\frac{3}{4}\right) \\ = \frac{7}{2} - \left(\frac{17}{6} \div \frac{7}{4}\right) \\ = \frac{7}{2} - \left(\frac{17}{6} \cdot \frac{4}{7}\right) \\ = \frac{7}{2} - \frac{34}{21} \\ = \frac{147}{42} - \frac{68}{42} \\ = \frac{79}{42}$$

Station E

1. Evaluate

$$\text{a) } 4^{-2} \\ = \frac{1}{16}$$

$$\text{b) } -(-3)^0 \\ = -1$$

$$\text{c) } -4^2 \\ = -16$$

$$\text{d) } (-3)^{-2} \\ = \frac{1}{9}$$

$$\text{e) } (-5)^2 \\ = 25$$

$$\text{f) } \left(\frac{-3}{2}\right)^3 \\ = -\frac{27}{8}$$

2. Write as a single power.

$$\text{a) } (4^2)^{-3} \\ = 4^{-6}$$

$$\text{b) } (7^3)(7^5) \\ = 7^8$$

$$\text{c) } \frac{5^8}{5^{-3}} \\ = 5^{11}$$

$$\text{d) } \frac{(3^3)^4}{(3^2)(3^{-3})} \\ = \frac{3^{12}}{3^{-1}} \\ = 3^{13}$$

Station F

1. Write in scientific notation.

a) 3 450 000 000 000 3.45×10^{12}

b) 0.000 000 000 000 000 000 000 000 12 1.2×10^{-22}

c) 456 4.56×10^2

d) 0.34 3.4×10^{-1}

e) 0.45×10^{-5} 4.5×10^{-6}
 4.5×10^{-1}

f) 543×10^{14} 5.43×10^{16}
 5.43×10^2

2. Write in expanded form.

a) -5.4×10^{-8} $-0.000\ 000\ 054$

b) 4.2×10^{-3} 0.0042

c) -1.3576×10^5 $-135\ 760$

d) 9.3×10^4 93000