1. Identify the rational numbers.

a) 17 ✓ $\dfrac{5}{0}$ ✗   −3.606 ✓ $\sqrt{3}$ ✗ $-8\dfrac{3}{4}$ ✓

ends

b) −0.2 ✓ $9.\overline{12}$ ✓ $\dfrac{0}{0}$ ✗ $-\dfrac{13}{4}$ ✓   7.1234... ✗

ends   repeating

6. Identify the equivalent fraction pairs.

a) $-\dfrac{10}{4}$, $\dfrac{-10}{+4}$ **b)** $-\dfrac{7}{14}$, $-\dfrac{1}{2}$ **c)** $\dfrac{-5}{-2}$, $\dfrac{5}{2}$ ✓

$\div 7$

$\div 7$

$\dfrac{-10}{4}$ $\dfrac{10}{4}$

not
equivalent

$-\dfrac{1}{2}$ $\dfrac{-1}{2}$ ✓

7. Identify the equivalent rational number pairs.

$4 \qquad \frac{2}{3}$

a) $\frac{-3}{-2}$, $1\frac{1}{2}$

b) $4.\overline{6}$, $4\frac{+2}{\times 3}$

$\frac{12}{3} + \frac{2}{3}$ neg

c) -0.8, $\frac{-4}{-5}$ pos $=$

$\frac{3}{2}$ $\qquad$ $\frac{2}{2} + \frac{1}{2}$

✓ $\quad \boxed{\frac{3}{2}}$

$\frac{14}{3}$

$4 + 0.\overline{6}$

$\frac{36}{9} + \frac{6}{9}$

✓ $\quad \boxed{\frac{42}{9}}$

$\frac{14 \times 3}{3 \times 3} = \frac{42}{9}$

8. Identify the smaller value in each pair.

a) $\left(-\dfrac{1}{2}\right)$ $\dfrac{3}{4}$

neg is always smaller than pos

b) $\overset{\times 9}{\dfrac{7}{8}}$, $\overset{8}{\underset{9}{}}\overset{\times 8}{}$ $\times 8$
$\times 9$

$\left(\dfrac{63}{72}\right)$ $\dfrac{64}{72}$

$\boxed{7/8}$

c) $-\dfrac{3}{7}, \left(-\dfrac{4}{7}\right)$

d) $-\dfrac{1}{100}, \left(-\dfrac{1}{10}\right)\times 10$
$\times 10$

$\left(-\dfrac{10}{100}\right)$

e) $\left(-2\dfrac{3}{4}\right), -2\dfrac{3}{8}$

$\dfrac{-3^{\times 2}}{4^{\times 2}}$ $-3/8$

$\left(\dfrac{-6}{8}\right)$

f) $0, \left(-\dfrac{1}{11}\right)$

10. For each of the following pairs of rational numbers,

i) write the rational numbers in fraction form

ii) identify a fraction between the pair of fractions

$$\frac{-655 \div 5}{1000 \div 5} \boxed{\frac{-131}{200}}$$

a) 0.8, 0.9   **b)** −0.65, −0.66   **c)** −0.9, −1

$$\frac{8^{\times 2}}{10^{\times 2}} \quad \frac{9^{\times 2}}{10^{\times 2}}$$

$$\frac{-65^{\times 10}}{100^{\times 10}} \quad \frac{-66^{\times 10}}{100^{\times 10}}$$

$$\frac{-9^{\times 2}}{10^{\times 2}} \quad \frac{-10^{\times 2}}{10^{\times 2}}$$

$$\frac{16}{20} \boxed{\frac{17}{20}} \frac{18}{20}$$

$$\frac{-650}{1000} \quad \frac{-660}{1000}$$

$$\frac{-18}{20} \boxed{\frac{-19}{20}} \frac{-20}{20}$$

11. Express each rational number as a fraction or mixed number in lowest terms.

$$\downarrow$$
$$-655/1000$$

a) 7 ÷ (−14)   **b)** −75 ÷ 100   **c)** −4.4

$$\frac{7 \div 7}{-14 \div 7} = \frac{-1}{2}$$

$$\frac{-75 \div 25}{100 \div 25} = \frac{-3}{4}$$

$$\frac{-44 \div 2}{10 \div 2} = \boxed{\frac{-22}{5}} = -4\frac{2}{5}$$

$$\frac{-10}{4}$$

-2.8

Place these rational numbers in descending order.

$$\frac{-3}{4} \ , \ 0.5 \ , -1.8 \ , -5 \ , \ \frac{7}{3} \ , \ 2 \ , -3.\bar{3} \ , \ 1\frac{3}{4}$$

i'm okay with you using a calculator
for this type of question

Identify a decimal between each pair of rational numbers.

$$\frac{-1}{2} \overset{\times 2}{\underset{\times 2}{\text{and}}} \frac{-1}{4}$$

$$-2 \overset{\times 3}{\underset{\times 3}{\frac{}{4}}} \qquad -1 \overset{\times 3}{\underset{\times 3}{\frac{}{4}}}$$

$$\frac{-6}{12} \qquad \frac{-3}{12}$$

$$\frac{-4}{12}$$

calc.

$$-0.\overline{3}$$

-0.25 and -0.26

$$-0.250 \qquad -0.260$$

$$\boxed{-0.255}$$

Identify a fraction between each pair of rational numbers.

$$\frac{-2}{3} \text{ and } \frac{-3}{4}$$

$$\frac{5}{2} \text{ and } \frac{7}{3}$$

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14, 16-18, 21, 24-27