

**Selected Response:** Put the letter of the best response in the space provided.

1. Which fraction converts to a repeating decimal?

- A.  $\frac{2}{5} \begin{matrix} \times 2 = 4 \\ \times 2 = 10 \end{matrix}$
- B.  $\frac{12}{25} \begin{matrix} \times 4 = 48 \\ \times 4 = 100 \end{matrix}$
- C.  $\frac{2}{3} = 0.\overline{6}$
- D.  $\frac{9}{10}$

cannot be written with a denominator of 10, 100, 1000, ...

1.)	
2.)	
3.)	
4.)	
5.)	
6.)	
7.)	
8.)	
9.)	
10.)	

2. Which set of decimals match the list of fractions?

$$\frac{7}{100}, \frac{27}{100}, \frac{99}{100}$$

- A. 0.07, 0.027, 0.099
- B. 0.07, 0.27, 0.99
- C. 0.7, 0.27, 0.99
- D. 0.7, 2.7, 9.9

0.07

3. What is  $0.\overline{3}$  as a fraction?

- A.  $\frac{3}{0.1}$
- B.  $\frac{3}{10}$
- C.  $\frac{3}{100}$
- D.  $\frac{3}{1000}$

$$\frac{3}{10}$$

$$\frac{\quad}{40} = \frac{\quad}{\quad} \%$$

$$0.\overline{3} = \frac{3 \div 3}{9 \div 3} = \frac{1}{3}$$

$$0.0\overline{3} = \frac{3 \div 3}{99 \div 3} = \frac{1}{33}$$

$$0.3\overline{1} = \frac{31}{99}$$

4. Which fraction belongs between the two numbers to make the statement true?

$$0.2 < \frac{\quad}{\quad} < \frac{7}{10} = 0.7$$

- A.  $\frac{3}{100}$
- B.  $\frac{1}{10}$
- C.  $\frac{1}{5}$
- D.  $\frac{3}{5} \begin{matrix} \times 2 = 6 \\ \times 2 = 10 \end{matrix} = 0.6$

0.3, 0.4, 0.5, 0.6

5. What is  $\frac{4}{5}$  as a decimal?  $\frac{4}{5} \times \frac{2}{2} = \frac{8}{10} = 0.8$

- A. 0.04
- B. 0.08
- C. 0.4
- D. 0.8**

$$\begin{array}{r} 0.8 \\ 5 \overline{) 4.0} \\ \underline{-0} \phantom{0} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

OR

6. Which set of numbers is ordered from least to greatest?

- ~~A.~~  $\frac{1}{4}, \frac{8}{7}, \frac{3}{8}$
- B.**  $\frac{1}{4}, \frac{3}{8}, \frac{8}{7}$
- C.  $\frac{3}{8}, \frac{1}{4}, \frac{8}{7}$
- ~~D.~~  $\frac{8}{7}, \frac{3}{8}, \frac{1}{4}$

$$\frac{1}{4}$$

$$\frac{8}{7} = 1\frac{1}{7}$$

$$\frac{3}{8}$$



7. Which number is greater than  $3\frac{3}{5}$ ?  $3\frac{3}{5} \times \frac{2}{2} = 3\frac{6}{10} = 3.60$

- ~~A.~~  $3\frac{1}{5} \times \frac{2}{2} = 3\frac{2}{10} = 3.20$
- B.  $\frac{7}{2} = 3\frac{1}{2} = 3.50$
- C.**  $3\frac{9}{10} = 3.90$
- D. 3.42

8. Using front-end estimation, what is the best estimate of  $2.4 + 8.4 + 6.4$ ?

- A. 16**
- B. 17
- C. 18
- D. 19

$$16$$

9. Using front-end estimation, where should the decimal be placed in the product

$$2.4 \times 12.4?$$

- ~~A.~~ 0.2904
- ~~B.~~ 2.904
- C.** 29.04
- ~~D.~~ 290.4

$$24$$

10. Evaluate:  $1.8 \div 0.9$

- A. 0.02
- B. 0.2
- C. 2
- D. 20

**Constructed Response:** Show ALL necessary workings for FULL marks!!!

1. Consider the following pattern:

$$\frac{1}{11} = 0.\overline{09}, \quad \frac{2}{11} = 0.\overline{18}, \quad \frac{3}{11} = 0.\overline{27}, \quad \frac{4}{11} = 0.\overline{36},$$

A. Predict the decimals for  $\frac{5}{11}$  and  $\frac{9}{11} \times 9 = \frac{81}{99} = 0.\overline{81}$  [2 marks]

$$\frac{5}{11} = 0.\overline{45}$$

B. Predict the fraction which will have  $0.636363 \dots$  as a decimal. [1 mark]

$$\frac{63 \div 9}{99 \div 9} = \frac{7}{11}$$

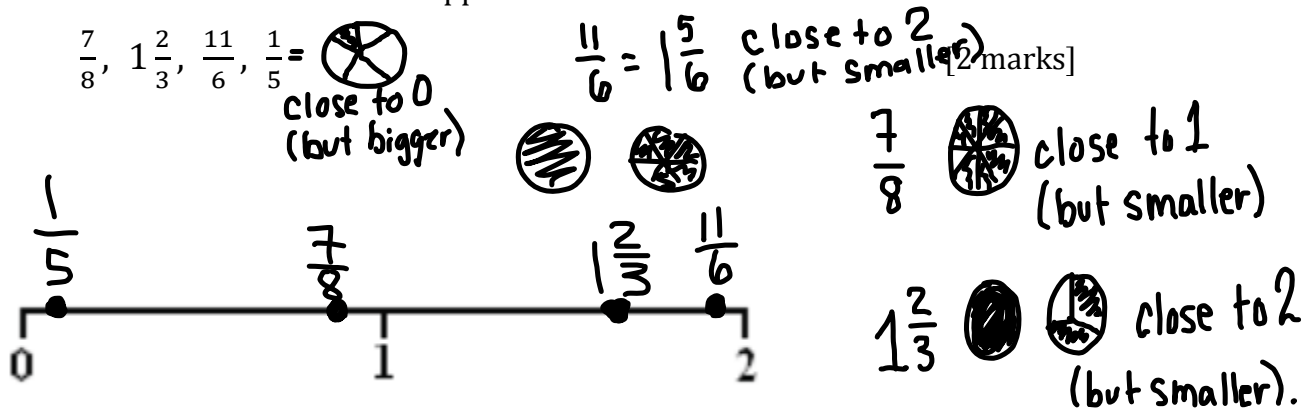
2. Arrange the following numbers in order from least to greatest. [3 marks]

$0.36, 0.\overline{3}, 0.3, 0.\overline{36}, 0.03, 0.33$

$0.3600$   
 ~~$0.3333\dots$~~   
 ~~$0.3000$~~   
 $0.3636\dots$   
 ~~$0.0300$~~   
 ~~$0.3300$~~

$0.03, 0.3, 0.33, 0.\overline{3}, 0.36, 0.\overline{36}$

3. Write each of the numbers in an approximate location on the number line.



4. Complete the table. [2 marks]

$$\begin{array}{r} 125 \\ \times 3 \\ \hline 375 \end{array}$$

FRACTION	DECIMAL
$\frac{3 \times 125}{8 \times 125} = \frac{375}{1000}$	0.375
$\frac{3 \div 3}{9 \div 3} = \frac{1}{3}$	$0.\bar{3}$

5. Use a model of your choice to evaluate each:



1.8  $\div$  0.3

[3 marks]

B.  $2.1 \times 1.5$  ← 2 digits after decimal

[3 marks]

	20	1
10	$20 \times 10 = 200$	$10 \times 1 = 10$
5	$20 \times 5 = 100$	$1 \times 5 = 5$

$$\begin{array}{r} 200 \\ 100 \\ 10 \\ + 5 \\ \hline 315 \end{array}$$

← 2 digits after decimal

6. Evaluate. Use estimation to ensure your answer is reasonable.

[8 marks]

A. line up decimals

A.  $6.51 + 7.8 + 2.1$

$$\begin{array}{r} 6.51 \\ 7.80 \\ + 2.10 \\ \hline 16.41 \end{array}$$

est.  $6 + 7 + 2 = 15$

B.  $10.3 - 5.21$

$$\begin{array}{r} 10.30 \\ - 5.21 \\ \hline 5.09 \end{array}$$

est:  $10 - 5 = 5$

C.  $1.6 \times 7.2$

~~X~~  $2.34 \div 0.6$

$$\begin{array}{r} 1.6 \\ \times 7.2 \\ \hline 32 \\ + 1120 \\ \hline 1152 \end{array}$$

est.  $1 \times 7 = 7$

$$\begin{array}{r} 7.2 \\ \times 1.6 \\ \hline 432 \\ + 720 \\ \hline 1152 \end{array}$$

7. Solve each problem. Show all workings.

[2 marks each]

- A. It takes Keegan 2.4 km to walk home from school. It takes him 2.31 km to walk to the stadium from school. What is the difference between the two distances?

$$\begin{array}{r} 2.40 \\ - 2.31 \\ \hline 0.09 \end{array}$$

↓  
Subtraction

- B. Mitchell's cat has a mass of 1.8 kg. His dog has a mass 2.5 times as much as his cat. What is the mass of the dog, in kg?

$$\begin{array}{r} 1.8 \\ \times 2.5 \\ \hline .90 \\ + 360 \\ \hline 4.50 \end{array}$$

↓  
multiply

- ~~X~~ Emily has 5.4 ft of rope. She wants to make survivor bracelets. Each bracelet requires 0.6 ft. of rope. How many bracelets can she make?