

Name: Key

45

1. Circle the fractions that are equal to $-\frac{4}{5}$?

$$\frac{4}{5}, -\frac{5}{4}, \left(\frac{-4}{5}\right), \frac{-4}{-5}, \left(\frac{8}{10}\right)$$

[2 marks]

2. Write the rational number represented by each letter as a decimal.

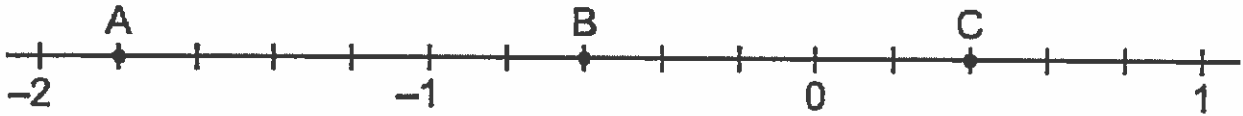
[2 marks]



A. -1.8	B. -0.1	C. 0.6	D. -0.9
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3. Write the rational number represented by each letter as a fraction.

[3 marks]



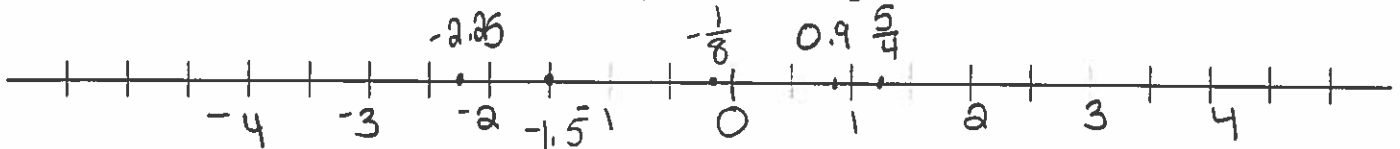
A. $-1\frac{4}{5}$	B. $-\frac{3}{5}$	C. $\frac{2}{5}$
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4. Order the numbers from greatest to least. The number line may help you!

[4 marks]

$$-2.25, \frac{5}{4}, -1.5, -\frac{1}{8}, 0.9$$

$$\frac{5}{4}, 0.9, -\frac{1}{8}, -1.5, -2.25$$



5. In each pair, which rational number is greater? Explain how you know.

[2 marks]

A) $\frac{4}{6}, \frac{6}{4}$ $\frac{8}{12} < \frac{18}{12}$ $\frac{6}{4}$ is greater

B) $-10.\bar{3}, -10.3$ -10.3 is greater.

6. Add. Show your steps. Reduce answers to lowest terms.

[8 marks]

$$(i) \quad -\frac{2}{3} + \frac{3}{8}$$

$$\quad -\frac{16}{24} + \frac{9}{24}$$

$$\quad -\frac{7}{24}$$

$$(ii) \quad \left(-\frac{2}{3}\right) + \left(-\frac{3}{8}\right)$$

$$\quad -\frac{16}{24} + -\frac{9}{24}$$

$$\quad -\frac{25}{24}$$

$$(iii) \quad \frac{2}{3} + \left(-\frac{3}{8}\right)$$

$$\quad \frac{16}{24} + -\frac{9}{24}$$

$$\quad \frac{7}{24}$$

$$(iv) \quad \frac{2}{3} + \frac{3}{8}$$

$$\quad \frac{16}{24} + \frac{9}{24}$$

$$\quad \frac{25}{24}$$

7.

A) The individual runner's times for one team in the women's 200 freestyle relay were 26.71 s, 27.89 s, 26.98 s, and 25.87 s. What was the team's total combined time for the relay? [1 marks]

$$107.45 \text{ s}$$

B) Avery can run a mile in 5.23 minutes. Casey can run a mile in 6.89 minutes. How much faster can Avery run a mile than Casey? [1 marks]

$$1.66 \text{ mins}$$

8.

C) Kelly made \$300 and spent \$143.24 on clothes. The next week she made \$345.64 and spent \$123.23 on car insurance. After buying her cloths and car insurance, how much money did Kelly have? [1 marks]

$$\$ 379.17$$

D) Meredith is saving to buy a car. She has saved \$11,289.89. The car she wants costs \$12,283.93. How much more must Meredith save to buy the car? [1 marks]

$$\$ 994.04$$

[1 marks]

Evaluate. Show all of your steps. Reduce answers to simplest form.

A) $4\frac{1}{3} + (-3\frac{1}{2})$ [3 marks]

$$\frac{13}{3} + -\frac{7}{2}$$

$$\frac{26}{6} + -\frac{21}{6}$$

$$\frac{5}{6}$$

B) $(-1\frac{4}{5}) + (2\frac{5}{6})$ [3 marks]

$$-\frac{9}{5} + \frac{17}{6}$$

$$-\frac{54}{30} + \frac{85}{30}$$

$$\frac{31}{30}$$

C) $(-2\frac{3}{4}) - 1\frac{3}{8}$ [3 marks]

$$-\frac{11}{4} - \frac{11}{8}$$

$$-\frac{22}{8} - \frac{11}{8}$$

$$-\frac{33}{8}$$

D) $6\frac{7}{9} - (-3\frac{1}{4})$ [3 marks]

$$\frac{61}{9} - -\frac{13}{4}$$

$$\frac{244}{36} + \frac{117}{36}$$

$$\frac{361}{36}$$

9. Determine the missing rational number in each addition statement. [2 marks]

A) $-\frac{2}{3} - \square = 3\frac{5}{6}$
 $-4\frac{1}{2}$

B) $\square - (-\frac{3}{4}) = -2\frac{1}{2}$
 $-3\frac{1}{4}$

10. Identify if each number is rational or irrational and explain why. [6 marks]

Number	Rational or Irrational	Explanation
$-\frac{4}{7}$	Rational	- repeating decimal
$\sqrt{37}$	Irrational	- non-terminating non-repeating
5.23 $\bar{9}$	Rational	- repeating decimal

Bonus: +2.5% All workings MUST be shown!

Evaluate.

$$4 - \left[\frac{-\frac{2}{3} - 1\frac{1}{2}}{3\frac{1}{4}} \right] \div (-0.75 \div 0.15)^2$$

$$4 - \left[\frac{-\frac{2}{3} - \frac{3}{2}}{\frac{13}{4}} \right] \div \left(-\frac{75}{100} \div \frac{15}{100} \right)^2$$

$$4 - \left[\frac{-\frac{4}{6} - \frac{9}{6}}{\frac{13}{4}} \right] \div \left(-\frac{75}{100} \times \frac{100}{15} \right)^2$$

$$4 - \left[\frac{-\frac{13}{6}}{\frac{13}{4}} \right] \div [-9]^2$$

$$4 - \left[-\frac{13}{6} \div \frac{13}{4} \right] \div 25$$

$$4 - \left[-\frac{13}{6} \times \frac{4}{13} \right] \div 25$$

$$4 - \left[-\frac{4}{6} \right] \div 25$$

$$4 - -\frac{4}{6} \times \frac{1}{25}$$

$$4 - -\frac{4}{150}$$

$$\frac{600}{150} + \frac{4}{150}$$

$$\frac{604}{150} = \frac{302}{75}$$