

Assignment 1 Solutions

6.1 2 (explain), 28, 52, 64

6.2 32, 38, 42, 96

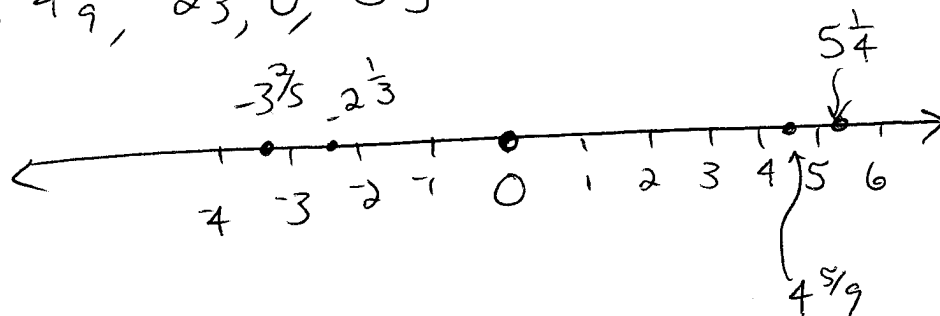
6.3 26, 36, 64, 76, 86 + convert $0.\overline{35}$ to fraction

6.1 2. A rational number between 3.8 + 3.9

ex $\frac{3.8+3.9}{2} = 3.85$ rational since $3.85 = \frac{385}{100}$

1 pt

28 $5\frac{1}{4}, 4\frac{5}{9}, -2\frac{1}{3}, 0, -3\frac{2}{5}$



1 pt

52. $17-21 = |5| = 5$
 $18-11 = |7| = 7$

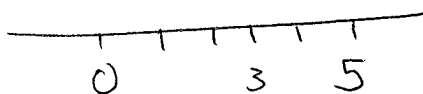
so the lesser one is $17-21$

1 pt

64. $|13-8| \leq |7-4|?$

$|5| \leq |3|$ false

$5 \leq 3$



1 pt

Section 6.2

32 $-7(-3) - [(2^3) - (3-4)]$

$= 21 - [8 - (-1)] = 21 - [8+1] = 21 - 9 = 12$

1 pt

5

$$38. \frac{2(-5+3)}{-2^2} - \frac{(-3^2+2)3}{3-(-4)}$$

$$= \frac{2(-2)}{-4} - \frac{(-9+2)3}{3+4}$$

$$= \frac{-4}{-4} - \frac{(-7)(3)}{7} = 1 - (-3) = 1+3 = 4$$

2pt

$$42. \frac{5 - 3\left(\frac{-5-9}{-7}\right) - 6}{-9 - 11 + 3 \cdot 7} = \frac{5 - 3\left(\frac{-14}{-7}\right) - 6}{-9 - 11 + 21}$$

$$= \frac{5 - 3(2) - 6}{-20 + 21} = \frac{5 - 6 - 6}{1} = \frac{5 - 12}{1} = \frac{-7}{1} = -7$$

2pt

$$96 \quad 1 \text{ min } 25.86 \text{ sec} + 10.07 \text{ sec} - 7.04 \text{ sec}$$

$$= 1 \text{ min } 28.89 \text{ sec}$$

1pt

$$\text{Section 6.3 } \frac{26 \cdot 19}{15} - \frac{7}{12} = \frac{19 \times 4}{15 \cdot 4} - \frac{7 \times 5}{12 \cdot 5} = \frac{76}{60} - \frac{35}{60} = \frac{41}{60} \text{ 1pt}$$

$$36. \frac{2}{5} \div \left(-\frac{4}{5} \div \frac{3}{10}\right) = \frac{2}{5} \div \left(\frac{-4 \times 10}{5 \cdot 3}\right) = \frac{2}{5} \div \left(\frac{-8}{3}\right) = \frac{2}{5} \times \left(\frac{-3}{8}\right)$$

$$= -\frac{3}{20} \text{ 1pt}$$

$$64 \quad -3, -\frac{5}{2} \quad \text{halfway: } \frac{-3 + \left(-\frac{5}{2}\right)}{2} = \frac{-\frac{6}{2} + \left(-\frac{5}{2}\right)}{2} = \frac{-11}{4}$$

1pt

✓

②

$$76. \frac{7}{8} = \frac{7}{2 \times 2 \times 2} \times \frac{5 \times 5 \times 5}{5 \times 5 \times 5} = \frac{875}{1000} = 0.875$$

3

1pt

$$86. .105 = \frac{105}{1000} = \frac{5(21)}{5(200)} = \frac{21}{200}$$

1pt

+ Convert $0.\overline{35}$ to fraction

1pt

$$= \frac{35}{99} = \frac{7 \times 5}{9 \times 11} \quad \text{no common factors}$$

16 pts