Do not use a calculator for questions 1 to 8.

**1.** Which of the following rational numbers are equal to ?  


**2.** Sketch a number line and mark each rational number on it.  
Order the numbers from greatest to least.   
–3.1, –1.2,, 0.6

**3.** In each pair, which number is greater? Explain your answer.

**a)** 

**b)** 

**4.** Determine each sum or difference.

**a)** 

**b)** 2

**c)** 

**d)** 

**5.** Predict which expression has the greater value. Explain your reasoning.   
Evaluate the expressions to check your prediction.

 

**6.** Evaluate.

**a)** 

**b)** 

**c)** 

**7.** These are the second, third, and fourth terms in a pattern: 3, –2,    
Each term can be found by dividing the previous term by .

**a)** Determine the next two terms in the pattern.

**b)** What is the first term in the pattern? Explain how you determined it.

**8.** Evaluate.

**a)** 

**b)** 

**9.** The following temperatures were recorded at the Port Hardy, B.C. airport at noon   
in one week:   
–2.3°C, –4.2°C, –1.4°C, 0.5°C, 1.3°C, –0.7°C, –3.8°C

**a)** What was the mean temperature at noon that week to the nearest tenth of a degree?

**b)** The mean temperature for that month was –6.8°C.   
Is the mean temperature for the week in part a greater than or less than the mean monthly temperature?   
By how much is the mean temperature for the week greater than or less than the mean monthly temperature?

**10.** Evaluate. Round the answer to the nearest hundredth if necessary. Explain how you used the order of operations in each part.

**a)** 

**b)** 