

Flow Rate
Practice Problems

1. A channel is currently carrying water that has a velocity of 1.2 ft/s (0.365 m/s). The channel has a width of 3 feet and the water is currently 1.75 feet deep. What is the flow rate?
 - A. 6.3 ft³/s (0.178 m³/s)
 - B. 0.7 ft³/s (0.020 m³/s)
 - C. 4.4 ft³/s (0.125 m³/s)
 - D. 2.1 ft³/s (0.059 m³/s)

2. The channel has water flowing through it at depth of 4 feet. The channel is 15 feet wide and the velocity of the water is 6.25 feet per second. What is the flow rate of the water?
 - A. 1.70 ft³/s (0.05 m³/s)
 - B. 9.60 ft³/s (0.27 m³/s)
 - C. 375 ft³/s (10.6 m³/s)
 - D. 188 ft³/s (5.3 m³/s)

3. A channel that is 5 feet wide with a length of 22 feet, has water flowing through it at 3.5 feet per second. The water has a depth of 2.75 feet in the channel. What is the flow rate of the water?
 - A. 1,059 ft³/s (29.99 m³/s)
 - B. 303 ft³/s (8.58 m³/s)
 - C. 385 ft³/s (10.9 m³/s)
 - D. 48 ft³/s (1.36 m³/s)