

EDT Mini-Test

Aids allowed: pens, pencils, erasers, ruler and a basic calculator if necessary.

The following test contains sample questions of the Executive MBA Diagnostic Tool, EDT.

Try the mini-test for a quick assessment of your quantitative skill level.

Get ready:

- Find a quiet spot
- Set a timer for 45 minutes
- Try to solve as many questions as you can, writing down your path to the solution
- Check your answers against the solution file

Part 1 – Algebra and Arithmetic

1. (a) Express the following as a fraction:

$$\frac{1}{6} \div \frac{2}{3} + \frac{4}{3} \times \frac{3}{8}$$

(b) Express the answer from (a) as a decimal.

2. Simplify the following:

(a) $\log_2 4 + \log_2 8 - \log_3 9$

(b) $\sqrt{27}(\sqrt{3} + \sqrt{18})$

3. Solve for x if $7 - 8x < 2x - 3$

4. Evaluate $\sum_{i=2}^4 i^2 + 5i - 6$

5. (a) Find the equation of the line which passes through the points (3, 4) and (-2, -6)

(b) What are the x-intercept, y-intercept and slope of the line in (a)?

6. What are the solutions to $3x + x^2 = -2$

7. In 4 years, Jennifer will be half the age her father was 7 years ago. If Jennifer's father was 27 years old when she was born, how old are father and daughter?

Part 2 – Graphing

8. The local water utility has conducted market research on how changes in the water rate (\$/m³) affect their end user's annual per capita water consumption. The results have shown that when the cost of water is \$1.75/m³, the annual consumption rate is 60 m³/person; and when the cost of water is \$2.25/m³, the annual consumption rate is 40 m³/person.

a. Graph the line and state the equation.

b. If the population in the town is 100,000 and the utility decides to set the water rate at \$2.00/m³, what would be the utility's expected annual revenue?

Part 3 – Logic and Reasoning

9. Abigail is a camper at an outdoor education day camp and is trying to schedule the activities in which she would like to participate. Her day consists of 2 different activities; one in the morning and a second in the afternoon. The activities available to her are canoeing, rock climbing, wind surfing, hiking, archery and horseback riding. Given the following information, answer the questions below.

She does not want to participate in both wind surfing and canoeing.

Rock climbing and hiking are only available in the morning.

She would like to spend the afternoon on the water if she goes horseback riding in the morning.

Archery is only available in the afternoon.

She thinks it is too cold in the morning for wind surfing.

(a) If her best friend Jason has signed up for the morning canoeing session and she wants to be his partner, what are her options for her afternoon session?

(b) If she wants to try archery, what are the possible activities she can select for her accompanying session?

(c) What are all her possible schedules if she knows she does not want to participate in archery or canoeing?