



BASIC ALGEBRA ASSESSMENT SAMPLE

You have up to 1 hour to complete this assessment. You may use a calculator.

PART A - Multiple Choice

1. Which of the following is a real number?
 a) $\sqrt{-4}$ b) $\sqrt{4}$ c) $\sqrt{-1}$ d) $\sqrt{1}$

2. Which of the following is a rational number?
 a) $\sqrt{2}$ b) $\frac{1}{2}$ c) $\sqrt{3}$ d) $\sqrt{4}$

- a) $\sqrt{2}$ b) $\frac{1}{2}$ c) $\sqrt{3}$ d) $\sqrt{4}$

3. Which of the following is a real number?
 a) $\sqrt{-4}$ b) $\sqrt{4}$ c) $\sqrt{-1}$ d) $\sqrt{1}$

- a) $\sqrt{-4}$ b) $\sqrt{4}$ c) $\sqrt{-1}$ d) $\sqrt{1}$

4. Which of the following is a rational number?
 a) $\sqrt{2}$ b) $\frac{1}{2}$ c) $\sqrt{3}$ d) $\sqrt{4}$

- a) $\sqrt{2}$ b) $\frac{1}{2}$ c) $\sqrt{3}$ d) $\sqrt{4}$

5. Which of the following is a real number?
 a) $\sqrt{-4}$ b) $\sqrt{4}$ c) $\sqrt{-1}$ d) $\sqrt{1}$

- a) $\sqrt{-4}$ b) $\sqrt{4}$ c) $\sqrt{-1}$ d) $\sqrt{1}$

6. Which of the following is a rational number?
 a) $\sqrt{2}$ b) $\frac{1}{2}$ c) $\sqrt{3}$ d) $\sqrt{4}$

- a) $\sqrt{2}$ b) $\frac{1}{2}$ c) $\sqrt{3}$ d) $\sqrt{4}$

PART B - Short Answer

1. $-7 =$ _____ 2. $-9 =$ _____

3. $(-2)^2 =$ _____ 4. $3(-2) =$ _____

5. $\frac{10(3)}{(15)} =$ _____

6. $\sqrt{16} =$ _____ 7. $\sqrt{25} =$ _____

8. $\sqrt{49} =$ _____ 9. $\sqrt{64} =$ _____

10. $\sqrt{81} =$ _____

11. $\sqrt{100} =$ _____

PART C } o } v P } (} v }

^ } o } š Z } (} o } } v P } (} o } e } - } e } - } • } Z } } v P } o o v } • • } e } ç } • š } % } • W

í X ñ Æ = î A í ó

1. _____

7 • Æ = X A ó X ! À 3e Ñ • Æ = 0` = X A ó X, Ô ! À 3a @ Đ • Æ = î = 0`] 0` € 7đ •

î X ð Æ = ï ~ Æ = î • A î ï

2. _____

• Æ = î • Æ Æ ï „ ` 0 Đ) Đ 0 Đ Â ð • î = ï A f à

3. $\frac{1}{3} \frac{1}{5} \frac{1}{5} = \frac{1}{5} A \hat{o}$

3. _____

ð X - ð Æ Æ î Æ = î î

4. _____

5. $\frac{x}{3} = \frac{12}{18}$

5. _____

PART D } o } v P } } } o } u } • } v P } (} v }

í X d Á] v } u } e }] • • } u } š } e } š } (} e } u } ñ } v } š } Z } e } • } u } š }] • í X W] l } š } Z } } e } e } š }

- Æ ð 10
- ñ Æ A î ï
- ï Æ 10
- d) 5 - Æ ø A î ï

2. A manis š Z e } Ÿ u • • } o } • Z] • } u } P Z š } e } X d Z • } u } } (} š } Z] e } P • } • ñ î X W] l

- Æ ù = Æ A ñ î • Æ = Æ = ï A ñ î
- Æ = ï Æ A ñ î • ï ~ Æ = Æ • A ñ î

î X / (v } u } e }] • } v } e } • } ç } î ï 9 } š } Z } e } • } u } š }] • ó î X W] l } š } Z } } e } e } š } (} v }

- Æ = X î Æ A ó ï Æ = X î Æ A ó ï
- Æ = î ï Æ A ó ï • Æ = î ï A ó ï

ð X d Z } % } e }] u } š } e } } (} % }] š } u } e } (} e } u }] • ï ð] v } Z • X W] l } š } Z } } e } e } š } (} v }