## **Beginning Algebra: Word Problems Quiz**

**Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Instructions**: Read each word problem. Use the hints to help you write an **algebra expression**. You do **not** need to solve the problems. Just write the expression using a variable (like xxx, hhh, or mmm).

### **1. 💼 Maria’s Work Pay**

Maria earns $45 every hour she works. Let h be the number of hours she works.

**Hint**: Multiply $45 by the number of hours.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **2. 💰 Jamal’s Budget**

Jamal has $2,000 each month. He pays r dollars for rent, $300 for food, and $150 for bills.

**Hint**: Add all the money he spends and subtract from $2,000.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **3. 🚗 Cost of a Ride**

A ride costs $3 to start and $0.75 for each mile. Let m be the number of miles.

**Hint**: Multiply $0.75 by miles and add $3.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **4. 🏋️ Gym Membership**

A gym costs $25 to join and $40 each month. Let m be the number of months.

**Hint**: Multiply $40 by months, then add $25.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **5. 🎁 Clara’s Job Bonus**

Clara earns $20 per hour and gets a $100 bonus if she works over 40 hours. Let h be her hours worked.

**Hint**: Multiply $20 by hours and add $100.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **6. 🌐 Extra Internet Data**

You get 10 GB of internet. After that, it’s $5 for each extra GB. Let x be the number of extra GB.

**Hint**: Multiply $5 by extra GB.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **7. 🕯️ Candle Sales**

Each candle sells for p dollars. The business sells c candles.

**Hint**: Multiply price per candle by number sold.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **8. 🌴 Saving for Vacation**

Alex saves $100 every 2 weeks. Let w be the number of weeks.

**Hint**: That’s $50 per week. Multiply $50 by weeks.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **9. 🏠 House Commission**

A worker earns 3% commission when selling a house worth p dollars.

**Hint**: 3% = 0.03. Multiply that by p.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **10. 🎂 Bakery Profits**

The bakery makes x dollars on each cake. They sell 50 cakes a day.

**Hint**: Multiply 50 by the profit per cake.

**Expression**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## **✅ Answer Key (for Teachers or Self-Check)**

1. 45h
2. 2000−r−450
3. 3+0.75m
4. 25+40m
5. 20h+100 *(if h>40h > 40h>40)*
6. 5x
7. pc
8. 50w
9. 0.03p
10. 50x