Name_____

Algebra

Directions: Read and answer each question.

1. Michael had 3 bookshelves to place books on. Michael must put the same
    amount of books on each shelf. If *B* represents the number of books
    Michael has, which of the following expressions will help him determine
    the number of books to put on each shelf?

A   B + 3

B   B – 3

C   B x 3

D   B ÷ 3

2. Noah made 5 times the number of homeruns as Jeremy made during one
    season. If *J* represents the number of homeruns Jeremy made, which of
    the following expressions could Noah use to find the number of homeruns
    made during this season?

F   J + 5

G   J – 5

H   J x 5

J   J ÷ 5

3. Which of the following could be solved using the open sentence *B* – 4=?

A   Jessi-Kate bought just enough buttons to put four on each shirt she made.
    If *B* is the number of kinds of buttons she bought, how many shirts did
    Jessi-Kate make?

B   Tiona bought four of each kind of bagel a bakery had in stock. If *B* is the
    number of kinds of bagels the bakery had, how many bagels did Tiona
    buy?

C   Alexis sold four fewer boxes of cookies than Diamond. If *B* is the number
    of boxes Diamond sold, how many boxes of cookies did Alexis sell?

D   Brandon found four new bugs for his collection today. If *B*
    is the number of bugs Brandon had yesterday, how many does he have
    now?

4.   Which of the following could be solved using the open sentence *E* + 6=?

F   Jessi-Kate bought just enough buttons to put six on each shirt she made. If *E* is the number of kinds of buttons she bought, how many shirts did Jessi-Kate make?

G   Tiona bought six of each kind of bagel a bakery had in stock. If *E* is the number of kinds of bagels the bakery had, how many bagels did Tiona buy?

H   Alexis sold six fewer boxes of cookies than Diamond. If *E* is the number of boxes Diamond sold, how many boxes of cookies did Alexis sell?

J   Brandon found six new bugs for his collection today. If *E* is the number of bugs Brandon had yesterday, how many does he have now?

5.   Jason made 2 times as many field goals as Derrick. If D represents the number of field goals Derrick made, which of the following could be used to find the number of field goals Jason made?

A   D + 2

B   D x 2

C   D – 2

D   D ÷ 2

6. Which of the following could be solved using *S* – 4=?

F   Laraine earned $4 more than Mia. If *S* is the amount in dollars that Mia earned, how much did Laraine earn?

G   Adam spent $4 on a notebook. If *S* is the amount of money that he started with, how much does Adam have left?

H   Jacob scored 4 fewer points on his math test than Cory. If *S* represents the number Cory scored, what is he score Jacob scored?

J   The raider recorder club makes $4 on each box of candy bars that they sell. If *S* is the number of boxes of candy bars that the club sold, how much did they make in all?

7. If Z represents a number, which of the following means "12 more than a number"?

A   Z – 12

B   Z + 12

C   Z x 12

D   Z ÷ 12

8. Which of these could be solved using the open sentence A + 2=?

F   Christy is 2 years older than Katie. If A is Katie's age in years, how old is Christy?

G   Dylan is 2 years younger than Sean. If A is Sean's age in years, how old is Dylan?

H   David is 2 times as old as Justin. If A is Justin's age in years, how old is David?

J   Kayla is one-half as old as Mr. Wells. If A is Mr. Wells' age, how old is Kayla?