Name: ..... Class: .....

Divisibility rules: word problems

a. A computer factory produced 816 desktop computers. The factory put all the desktop computers into boxes. How many desktop computers could be in each box if they all have the same number of articles?

☐ 6 ☐ 5 ☐ 7 ☐ 10

b. Bob owns a phone shop in town. He just recieved a shipment of 432 new phones. There are the same number of phones with different colors. How many colors could there be ?

☐ 5 ☐ 10 ☐ 9 ☐ 7

c. Berry has a huge collection of marbles. There are 34, 970 marbles packed in bags in her father's garage. Each bag contains the same number of marbles. How many bags of marbles could there be?

☐ 7 ☐ 12 ☐ 11 ☐ 10

d. Yesterday, Miss Larissa made 72 cookies. If she arranged the cookies on platters with the same number of cookies on each platter, how many desserts could she have put on each platter?

☐ 8 ☐ 3 ☐ 4 ☐ 9

e. Bertila has 55 tomato plants to plant in rows in her garden. She intends to put the same number of tomato plant in each row with no remainder. How many rows of tomato plants could she make?

☐ 10 ☐ 11 ☐ 2 ☐ 5

Solution

Name: ..... Class: .....

Divisibility rules: word problems

a. A computer factory produced 816 desktop computers. The factory put all the desktop computers into boxes. How many desktop computers could be in each box if they all have the same number of articles?

☑ 6 ☐ 5 ☐ 7 ☐ 10

To solve this, let's pick a number from above that can divide 816 without a remainder by applying the divisibility rules.
After applying the divisibility rules on all the digits, you'll see that the rule applies only to 6
That is 816 is divisible by both 2 and 3 which is also divisible by 6

b. Bob owns a phone shop in town. He just recieved a shipment of 432 new phones. There are the same number of phones with different colors. How many colors could there be?

☐ 5 ☐ 10 ☑ 9 ☐ 7

To solve this, let's pick a number from above that can divide 432 without a remainder by applying the divisibility rules.
After applying the divisibility rules on all the digits, you'll see that the rule applies only to 9
That is the sum of the digits in 432 is divisible by 9
4 + 3 + 2 = 9

c. Berry has a huge collection of marbles. There are 34, 970 marbles packed in bags in her father's garage. Each bag contains the same number of marbles. How many bags of marbles could there be?

☐ 7 ☐ 12 ☐ 11 ☑ 10