Name: _____ Date: _____

A Gross Is Twelve Dozen

Circle group

Most people know that a dozen means twelve. Eggs come in dozens. So do many donuts. But there is a bigger unit that fewer people know. A gross is twelve dozen. That means 12 times 12, or 144. For a long time, shops sold small things like pencils and buttons by the gross. They were easy to count in boxes of twelve.

There is an even larger name. A great gross is twelve gross. That is 12 times 144, or 1,728. Almost nobody needs that many buttons. But the name shows how a way of counting built on twelve can keep stacking up.

Why did people like twelve so much? It splits so easily. You can split twelve into two groups of 6. You can make three groups of 4, four groups of 3, or six groups of 2. Ten splits evenly only by 2 and 5. Twelve gives you more choices. That is handy when you share or sell things in parts. Half a dozen is 6. A third of a dozen is 4. A quarter of a dozen is 3.

Twelve shows up in other places, too. A foot has 12 inches. A year has 12 months. A clock face shows 12 hours. People have found twelve useful for a very long time.

Questions

1. How many items are in a dozen?

_____

_____

2. How many items are in a gross?

_____

_____

3. What is a great gross?

_____

_____

4. What is a third of a dozen?

_____

_____

5. Why do people like the number twelve?

_____

_____

6. Why might a shop sell pencils by the gross?

_____

_____

Words to know

dozen: a group of twelve
gross: a group of 144 things, or twelve dozen
unit: a set amount used for counting or measuring

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

A Gross Is Twelve Dozen

Triangle group

Most people know that a dozen means twelve. Eggs come in dozens, and so do many donuts. But there is a bigger unit that is not as well known. A gross is twelve dozen, which means 12 times 12, or 144. For a long time, shops sold small things like pencils and buttons by the gross, because it was easy to count them in boxes of twelve.

There is an even larger name, too. A great gross is twelve gross, which is 12 times 144, or 1,728. Almost nobody needs that many buttons, but the name shows how a counting system built on twelve can keep stacking up.

Why did people like twelve so much? The answer is in how easily it splits. You can divide twelve into two equal groups of 6, three groups of 4, four groups of 3, or six groups of 2. Ten can be split evenly only by 2 and 5. Twelve gives you more choices, which is handy when you share things or sell them in parts. Half a dozen is 6, a third of a dozen is 4, and a quarter of a dozen is 3.

Twelve shows up in other places, too. A foot has 12 inches, a year has 12 months, and the face of a clock shows 12 hours. People have found twelve useful for a very long time.

Questions

1. How many items are in a dozen?

_____

_____

2. How many items are in a gross?

_____

_____

3. What is a great gross?

_____

_____

4. What is a third of a dozen?

_____

_____

5. Why do people like the number twelve for counting and selling?

_____

_____

6. Why might a shop have sold pencils by the gross?

_____

_____

Words to know

dozen: a group of twelve
gross: a group of 144 things, or twelve dozen
unit: a set amount used for counting or measuring
equal: the same in size or amount

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

A Gross Is Twelve Dozen

Square group

Most people are aware that a dozen means twelve. Eggs are packaged in dozens, and so are many donuts. There is, however, a larger unit that is considerably less familiar. A gross is twelve dozen, which means 12 times 12, or 144. For a long time, shops sold small items such as pencils and buttons by the gross, since it was convenient to count them in boxes of twelve.

There is an even grander name as well. A great gross is twelve gross, which comes to 12 times 144, or 1,728. Hardly anyone needs that many buttons, yet the name demonstrates how a counting system built on twelve can keep stacking upward.

Why were people so fond of twelve? The explanation lies in how easily it divides. You can separate twelve into two equal groups of 6, three groups of 4, four groups of 3, or six groups of 2. Ten, by contrast, divides evenly only by 2 and 5. Twelve offers more choices, which is especially handy when you share things or sell them in portions. Half a dozen is 6, a third of a dozen is 4, and a quarter of a dozen is 3.

Twelve appears in many other places, too. A foot contains 12 inches, a year contains 12 months, and the face of a clock displays 12 hours. People have found twelve valuable for a very long time.

Questions

1. How many items make up a dozen?

_____

_____

2. How many items make up a gross?

_____

_____

3. What is a great gross?

_____

_____

4. What fraction of a dozen is four?

_____

_____

5. Why were people so fond of the number twelve for counting and selling?

_____

_____

6. Why might shops have sold pencils and buttons by the gross?

_____

_____

Words to know

dozen: a group of twelve
gross: a group of 144 things, or twelve dozen
unit: a set amount used for counting or measuring
equal: the same in size or amount

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: A Gross Is Twelve Dozen

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: A Gross Is Twelve Dozen

Easier · 197 words · Flesch-Kincaid grade 1.8

1. Twelve.
2. 144, which is twelve dozen.
3. Twelve gross, which is 1,728.
4. Four.
5. It splits evenly into groups of 2, 3, 4, and 6.
6. They were small and easy to count in boxes of twelve.

Triangle: A Gross Is Twelve Dozen

This passage · 211 words · Flesch-Kincaid grade 3.9

1. Twelve.
2. 144, which is twelve dozen.
3. Twelve gross, which is 1,728.
4. Four.
5. It splits evenly into groups of 2, 3, 4, and 6, so it gives many choices for sharing.
6. They were small items that were easy to count in boxes of twelve.

Square: A Gross Is Twelve Dozen

Harder · 215 words · Flesch-Kincaid grade 5.7

1. Twelve.
2. 144, which is twelve dozen.
3. Twelve gross, which comes to 1,728.
4. A third of a dozen.
5. It divides evenly into groups of 2, 3, 4, and 6, which offers many choices for sharing.
6. They were small items that were convenient to count in boxes of twelve.