Homework review

8. a) On the segment *AB* mark a point "*M*". How many segments do we have on the picture?

Here is an explanation on how these segments are counted using a trick:
https://www.basic-mathematics.com/number-of-segments.html

Review:

1. The remainder of $1932 \div 17$ is 11, the remainder of $261 \div 17$ is 6.
   Is $2193 = 1932 + 261$ divisible by 17?
   Can you tell without calculating and dividing?

2. If we want to divide *m* by 15, what numbers we can get as a remainder?

3. Farmer put green and red grapes into boxes. Each box contains 5lb of grapes. How many pounds of green and red grapes altogether did farmer put into boxes if he had 10 boxes of green and 8 boxes of red grapes?

Algebra

4. **Factorize (represent as a product of 2 or more multiples) the following expressions:**

Example: $3 \times 5 + 3 \times 7 = 3 \times (5 + 7)$

a. $2 \times 3 + 2 \times 5 =$
b. $3x + 3y =$
c. $5a + 5b + 5c =$
d. $ab + ac =$
e. $ma - mb =$
f. $ds + dk - dl =$

5. Open parenthesis using the distributive property of multiplication:

a. $a(x + y) =$
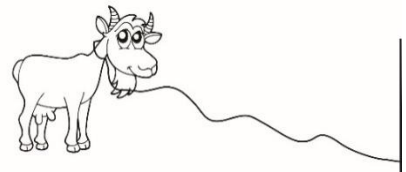b. $2 \times (a + b) =$
c. $8(7y - 3) =$
d. $(a + 2) \times 5 =$

6. Andrew prepares for an ironman competition. He trains for 256 days. Each day he swims for 37 minutes and runs for 63 minutes. How many minutes does he spend doing these sports altogether?
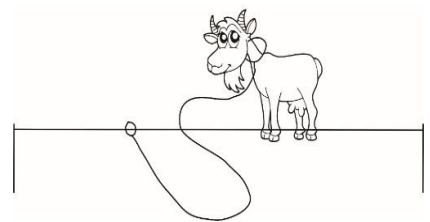
Geometry   CIRCLE

- Two circles touch at a single point (tangent circles). The radius of the first circle is 10 cm, the radius of the second circle is 6 cm. What is the distance between the centers of these circles?

- A goat is tied to a stake with a rope that is L meters long. What shape will it graze?

- A goat is tied to 2 poles with a rope that is L meters long. What shape will it graze?

7. We proved that if 2 angles are vertical angles then they are equal. Can we tell that if 2 angles are equal, then they are vertical angels?

8. **Four** angles are formed at the intersection of 2 lines. One of them is 30°. What is the measure of 3 others?