school nova™

Math 3   Homework 3

1 Compare numbers, using <, >, = (less than, greater than, equal to)

a) 500 ___ 50   322 ___ 232   606 ___ 660

b) 15 ___ 155   8,134 ___8,314   2,111 ___ 2,111

2 Write the value of the underlined digit.

a. 4̲5 – forty (4 tens)

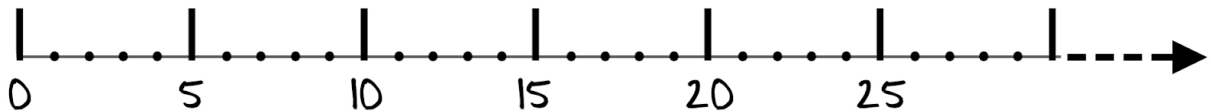b. 68̲ _____

c. 7̲19 _____

d. 80̲1 _____

e. 430̲ _____

f. 1̲82 _____

3 On the number line below find and mark the numbers:

a) greater than 5 and less than 10: :_____

b) less than 18 and greater than 14:_____

4 Write the number 284 in Mesopotamian's symbols.

(ones were written as Δ,   tens as ◄, and   60 as ▼).

_____

5 Write an equation for each problem and solve them.

a) John was given a pack of crayons. He gave 13 crayons to his friend Rhea and was left with 11 crayons. How many crayons did the pack contain?

_____

_____

_____

b) Lara and Mara had a quiz contest. They scored 23 points in all. If Lara Scored 9 points, how many points did Mara score?

_____

_____

_____

c) A gift box weighs 500g when empty. When a book is placed inside, the box weighs 3kg. How much does the book weigh? Write an equation to find the weight of the book.

_____

_____

_____

6 Using a map below, find your way from the Start to the Finish. Whichever way you will choose, you should visit three dots in between. At each dot, you will be charged a fee. If you have $20, can you get from start to finish and visit three dots? How? Mark the cheapest and the most expensive routes with different colors and write down how much you will pay for each route.
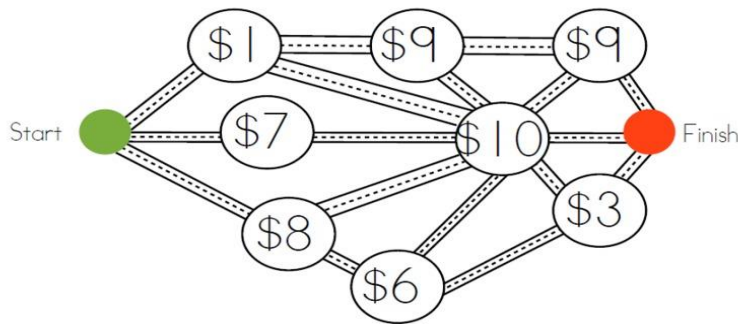
Example: Route A costs $7 + $10 + $3 = $20

Route B costs _____

Route C costs _____

(continue for other routes if needed).

7 Compute using the most optimal way. Rewrite the expression to show the new order of operation:

Example: $3 + 1 + 17 + 19 = (3 + 17) + (1 + 19) = 20 + 20 = 40$

$54 + 5 + 15 + 6 =$ _____ = _____

$12 + 7 + 38 + 13 =$ _____ = _____

$11 + 34 + 19 + 6 =$ _____ = _____

$26 + 41 + 4 + 19 =$ _____ = _____

$38 + 11 + 12 + 19 =$ _____ = _____

**8** Using a ruler divide, a given rectangle into 4 equal pieces in 4 different ways.
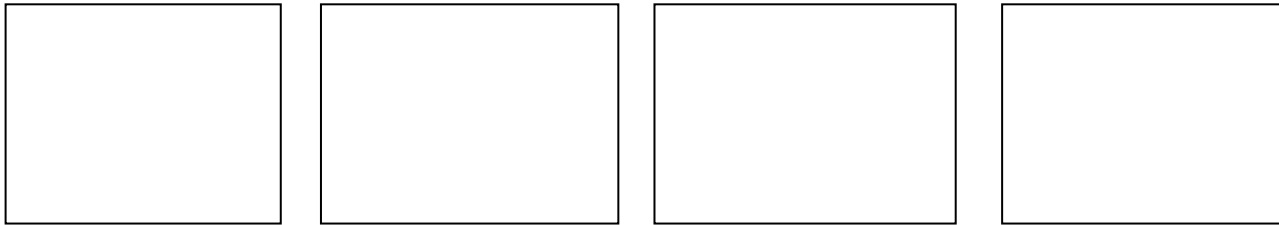
9 Write expressions instead of word sentences:

a) the sum of 29 and 2 is greater than A _____

b) B is greater than the difference between 20 and 5 _____

c) C is equal to the sum of 11, 32 and 40_____

d) the difference between 100 and D is less than E _____

10 I have ten boxes, with a total weight of 75kg: 15 kg, 13 kg, 11 kg, 10 kg, 9 kg, 8 kg, 4 kg, 2 kg, 2 kg, 1 kg.
I want to pack the boxes into 3 crates, but each crate can carry a maximum of 25 kg.
How can I pack the boxes into the crates? (There may, or may not, be more than one way!)

_____

_____

_____

11 Using a ruler, connect point A with points D and C. Also connect points E and B. How many triangles can you find on the picture?
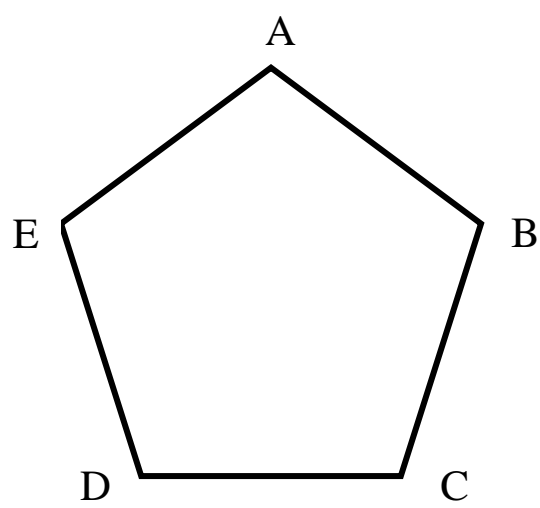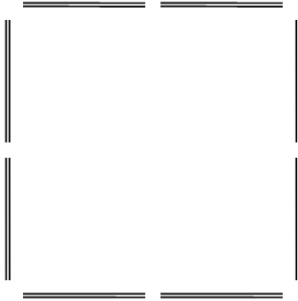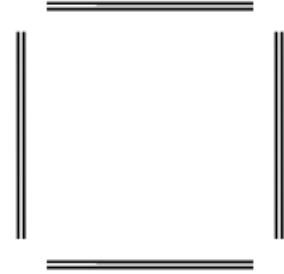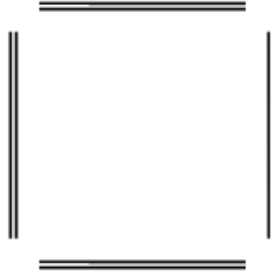
Matchsticks puzzles:

12

With 8 matchsticks you can make one square and 2 squares.

one square: two squares:

Look at the picture below. Make the same shape on your table (instead of matchsticks you can use toothpicks or any other short sticks of the same length).

Remove 2 matches (do not touch the other matches) and get 3 squares. How many matchsticks should you remove to get 2 squares?

Draw your solutions here.