Math 3 Homework 12

1

Multiplication Exercise.

Put the timer on for three (3) minutes and solve as many problems as you can.
Take a color pencil or pen and do the rest of the problems
(If you didn't finish it during the 3 minutes) ☺

Multiplication by 2, 3, 4, 5

2*6=	5*2=	2*8=	3*3=
4*7=	9*5=	5*6=	6*5=
5*2=	7*3=	5*3=	7*5=
3*8=	2*3=	2*2=	6*3=
2*9=	6*4=	3*9=	3*4=
3*5=	3*3=	5*7=	7*2=
3*5=	4*3=	2*6=	9*2=
5*3=	8*5=	2*6=	7*2=
5*5=	9*4=	3*4=	8*4=
3*2=	4*5=	5*2=	2*2=
2*6=	8*2=	2*9=	5*5=
3*9=	9*3=	2*3=	8*5=

2

A triangle is a closed shape with three straight sides that meet at three vertices. It is a polygon. Review the classification of the triangles:

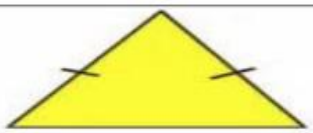
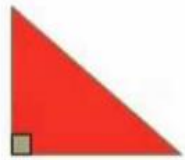
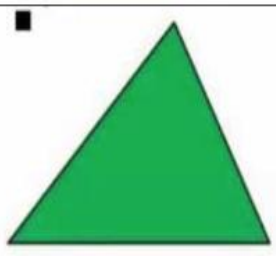
Types of triangles:

By sides:
a) Scalene triangle – no equal angles and no equal sides
b) Isosceles triangle – 2 equal sides and 2 equal angles
c) Equilateral triangle – 3 equal sides and 3 equal angles

By angles:
a) Right triangle– has a right angle
b) Obtuse triangle – has an angle that larger than a right angle
c) Acute triangle – all angles are smaller than a right angle

3

Determine what triangle it is by its sides and by its angles (USE THE RIGHT-ANGLE TEMPLATE OR PROTRACTOR):

Picture of a triangle	Type of the triangle
	_____ _____
	_____ _____
	_____ _____
	_____ _____
	_____ _____

4 Using a ruler and a protractor, draw the following shapes:

a) A shape with 3-line segments that is not a triangle.

b) A right isosceles triangle △ABC

c) an obtuse isosceles triangle △PQ

5 Compare expressions using <, >, =

$5 \times 6 - 5$ ____ $5 \times 5 + 5$ $7 \times 6 + 7$ ____ $6 \times 7 + 6$

$48 + 20$ ____ $4 \times 5 + 50$ $24 + 32$ ____ $(32 - 24) \times 7$

6 While helping their mother to unload a dishwasher, Victoria put 5 plates on each of 3 shelves of the kitchen cabinet and Julia put 4 plates on the each of 3 shelves. How many plates did both put in the kitchen cabinet?

_____

_____

_____

7 Find the greatest missing number so that an inequality will still be correct.

$6 \times$____ < 45 $7 \times$ ____ $< 40 - 5$ $27 + 8 > 6 \times$ _____

____ $\times 9 < 32$ ____ $\times 5 < 4 \times 7$ $8 \times$ ____ $< 20 + 27$

8 Find the missing numbers to make an equality correct:

$15 \times 2 = 5 \times$ ____ $12 \times$ ____ = _____ $\times 24$ $14 \times 4 = 8 \times$ _____

$15 \times 4 = 10 \times$ ____ $25 \times$ ____ $= 10 \times 10$ $25 \times 3 = 5 \times$ _____

9 Find ONLY the last digit of the product:

45321×423 _____ 87325×938162 _____ 93824×156832 ____

73815×38915 ____ 6783×982713 _____ 49812×390 _____

10 Open parentheses and simplify the expressions (find and cancel all like-terms):

300 – (a + b) = _____

300 – (a + 2) + (b – 100) = _____

29 – (5 + b) = _____

29 – (5 + a) + (a + 15) = _____

70 – (b – a) = _____

70 – (2 – 1) – (c – d) = _____

65 – (a + b + 5) = _____

65 – (1 + 2 + 5) + (d – a + b) = _____

11 Compare using <, > or =:

810 cm ____ 8 m	7 m _____ 75 cm	1m _____ 100mm
6m 57cm ____ 657cm	360 cm _____ 3m 60mm	365mm ____ 36m 5mm

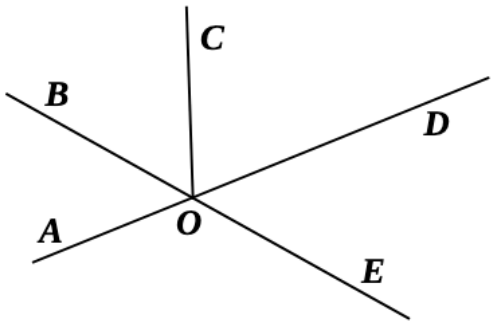
12 Find all pairs of supplementary angles on the drawing. Measure these angles with a protractor. Write down your results. Make sure supplementary angles add up to 180º.

∠AOB = 50º and ∠BOD=_____

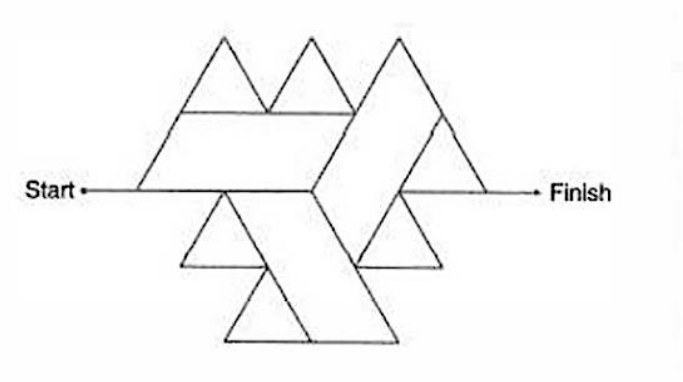
_____

_____

_____



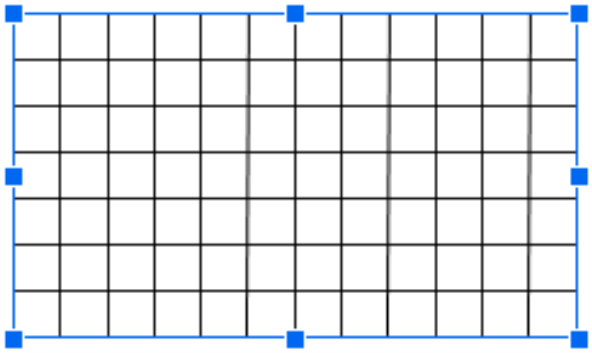
13 Complete angle maze below by tracing a path from start to finish that has only acute angles.

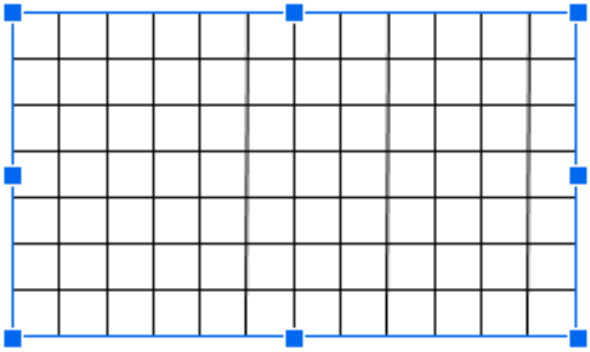


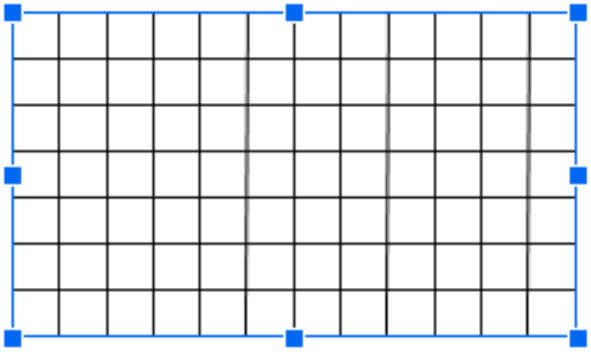
14

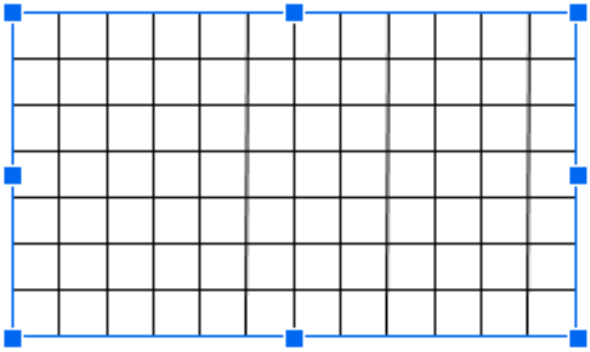
The **perimeter** of a polygon is the sum of the lengths of all its sides.

Perimeter of quadrilateral is 16 cm (assume that each cell is 1cm). Draw several different quadrilaterals with the same perimeter – 16 cm.









15

Solve for x and check your answers:

$x + 23 = 100 - 62$

$85 - x = 42 + 45$

16

Try to trace every line in each diagram without lifting a pencil or tracing the same line twice. Is it possible to do for all those five diagrams?