

# Turtle Math Worksheets

Grade 4 – Mathematics



## Lesson Details

<b>Grade Level:</b>	4	<b>Curriculum Links:</b>	Mathematics	<b>Time Needed:</b>	40 minutes – 1 hour
<b>Learning Goal</b>	To gain practice and confidence in math, as well as explore applications related to the real world.				
<b>Success Criteria</b>	By the end of this lesson, students will have successfully completed the worksheet.				
<b>Specific Expectations</b>	<p><i>Quantity Relationships</i></p> <ul style="list-style-type: none"> <li>• Round four-digit whole numbers to the nearest ten, hundred, and thousand, in problems arising from real-life situations;</li> <li>• Represent, compare, and order decimal numbers to tenths, using a variety of tools and using standard decimal notation;</li> <li>• Solve problems that arise from real-life situations and that relate to the magnitude of whole numbers up to 10,000.</li> </ul> <p><i>Operational Sense</i></p> <ul style="list-style-type: none"> <li>• Add and subtract two-digit numbers, using a variety of mental strategies;</li> <li>• Solve problems involving the addition and subtraction of four-digit numbers, using student-generated algorithms and standard algorithms;</li> <li>• Multiply to <math>9 \times 9</math> and divide <math>81/9</math>, using a variety of mental strategies;</li> <li>• Solve problems involving the multiplication of one-digit whole numbers, using a variety of mental strategies;</li> <li>• Multiply whole numbers by 10, 100, and 1000, and divide whole numbers by 10 and 100, using mental strategies;</li> <li>• Multiply two-digit whole numbers by one-digit whole numbers, using a variety of tools, student-generated algorithms, and standard algorithms;</li> <li>• Divide two-digit whole numbers by one-digit whole numbers, using a variety of tools and student-generated algorithms.</li> </ul> <p><i>Attributes, Units and Measurement Sense</i></p> <ul style="list-style-type: none"> <li>• Draw items using a ruler, given specific lengths in millimeters or centimeters;</li> <li>• Estimate, measure using a variety of tools and strategies, and record the perimeter and area of polygons.</li> </ul>				
<b>Materials Needed</b>	Worksheet (attached), Pencil, Calculator (optional).				

## Lesson Description

<b>Overview</b>	Students will complete fun math problems, related to turtles, in the attached worksheet.
<b>Activity</b>	<ol style="list-style-type: none"> <li>1. Hand out the worksheet to the students.</li> <li>2. Optional: Students can work individually or in small groups.</li> <li>3. Optional: As a class, take up the worksheet.</li> </ol>
<b>Blacklist Masters</b>	<ul style="list-style-type: none"> <li>• Worksheet (attached)</li> <li>• For more information, please visit <a href="https://www.turtleguardians.com/">https://www.turtleguardians.com/</a></li> </ul>
<b>Place-Based Learning</b>	Students can relate what they have learned about turtles to their local wildlife.
<b>Inquiry-Based Learning</b>	Using <b>Structured Inquiry</b> , students will complete the worksheet.

## Lesson Description

	Ask the students: <ul style="list-style-type: none"><li>• Why is turtle conservation important?</li><li>• How can we help turtles to cross the road?</li></ul>
<b>Turtle Stories</b>	Try your hand at making new math problems for others to solve. Students are encouraged to share what they have learned and any new problems created on the Turtle Stories website, found here: <a href="https://www.turtlestories.ca/">https://www.turtlestories.ca/</a>
<b>Turtle Guardian Program Links</b>	In <b>Level 1</b> (Ontario Turtle Identification) of the <b>Turtle Guardian Program</b> , students will learn how to identify all 8 species of Ontario's turtles, information about their habitats and how to help them. For more information, please visit <a href="https://www.turtleguardians.com/what-is-a-turtle-guardian/">https://www.turtleguardians.com/what-is-a-turtle-guardian/</a>

## My Notes



# Turtle Math Worksheet



Grace is a Wetland Watcher for Turtle Guardians. She visits the same wetland near her house every day to look for turtles. Below is a chart of what turtles Grace found over the summer.

A. How many turtles did Grace see over the summer in total?

$$\underline{25 + 82 + 54 = 161}$$

Turtle Species	Number of Turtles
Blanding's Turtle	25
Painted Turtle	82
Snapping Turtle	54

B. Blanding's Turtles are a threatened species in Ontario, which means their population is declining. If the population of Blanding's Turtles disappeared from the wetland, how many turtles would Grace have seen?

$$\underline{161 - 25 = 136}$$



Sydney is a Turtle Researcher. She estimates that the population of Map Turtles in a large river is 1400 turtles.

A. If there are an estimated 724 female turtles in the population, how many male turtles would there be?

$$\underline{1400 - 724 = 676}$$

B. Leora is a Turtle Researcher in a river that connects to Sydney's river. Leora estimates her river has 1250 Map Turtles. How many turtles are there in total?

$$\underline{1400 + 1250 = 2650}$$

C. Very few turtles make it to become adults in the wild. This could be because turtles get hit by cars or eaten by predators. If only  $\frac{1}{4}$  of the total population of Map Turtles live to become adults, what is the number of turtles that will become adults. Round your number to the nearest 10.

$$\underline{2650 \div 4 = 662.5}$$

$$\text{Rounded} = \underline{663}$$





Emma is digging up some Painted Turtle nests that are in an unsafe location on a construction site. Once she digs up the eggs, Emma will put the nests into an incubator where the eggs will hatch into baby turtles.

A. If Painted Turtles usually lay 15 eggs in each nest, and Emma dug up a total of 150 eggs, how many nests were there?

$$\underline{150 \div 15 = 10}$$

B. Emma incubated the eggs. After 60 days the turtles started to hatch! Only 136 eggs out of 150 hatched. How many did not hatch?

$$\underline{150 - 136 = 14}$$



**Did you know?**

When a turtle nest is found in an unsafe area you can contact the Turtle Guardians and they will collect the eggs to be incubated. After about 60 – 90 days of incubation, the baby hatchlings will be returned to where they were originally found.



**A Snapping Turtle laid 30 eggs.**

A. If only 1/3 survive to adulthood, how many Snapping Turtles will become adults?

$$\underline{30 \div 3 = 10}$$

B. If the same mother Turtle lays 30 eggs each year for 10 years, how many eggs will she have laid in total?

$$\underline{30 \times 10 = 300}$$



**Musk Turtles lay small amounts of eggs. If a Musk Turtle lays 3 eggs in their nest, and 18 eggs were collected, how many Musk Turtles laid eggs?**

$$\underline{18 \div 3 = 6}$$



Angie was weighing the Turtles that live at the Turtle Guardians Headquarters. Below is a table with each of their weights.

A. By name, order the turtles from smallest to largest.

Mica, Betty Boop, Jerimiah, Timothy

B. Which turtle is the smallest?

Mica

C. Which turtle is the largest?

Timothy

D. Round each weight to the nearest whole number and add it to the chart.

Turtle	Weight (grams)	Rounded Weight
Mica	100	100
Timothy	1025.8	1026
Jerimiah	1025.4	1025
Betty Boop	360.4	360



Jaime was driving on the road and saw 2 Blanding's Turtles nesting. She pulled over and waited for the turtles to finish nesting, protecting them from cars as she sat near by. Jaime is a volunteer Nest Protector with the Turtle Guardians. When one of the turtles was laying her eggs, Jaime counted 18 eggs.

A. If the other turtle also laid 18 eggs, how many eggs were there in total? Use multiplication to find out.

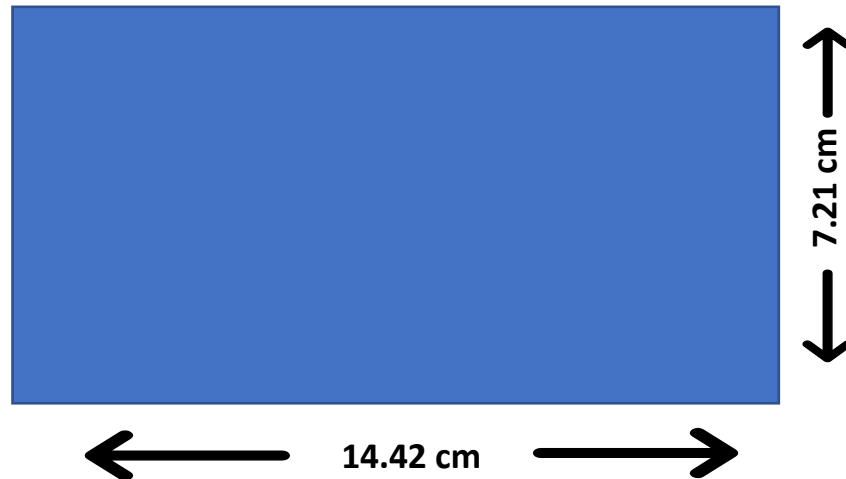
18 X 2 = 36

B. If only 1/3 of the 18 eggs in the nest hatch, how many baby turtles will there be? Use division to find out.

18 ÷ 3 = 6

Tripod the Painted Turtle is having a pool party. He wants to know how big his pool is. He needs to know the area in order to find this out. He knows his pool is the shape of a rectangle; one side is 14.42 cm long and the short side is half of 14.42 cm.

A. Draw a diagram of Tripod's pool.



B. Round the long side of the pool to the nearest whole number.

14 cm

C. Determine the length of the short side using division (rounded from your answer above).

$14 \text{ cm} \div 2 = 7 \text{ cm}$

D. Find the perimeter of the pool.

$14 \text{ cm} + 14 \text{ cm} + 7 \text{ cm} + 7 \text{ cm} = 42 \text{ cm}$

E. Find the area of the pool.

$14 \text{ cm} \times 7 \text{ cm} = 98 \text{ cm}$





# Turtle Math Worksheet



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C. Very few turtles make it to become adults in the wild. This could be because turtles get hit by cars or eaten by predators. If only  $\frac{1}{4}$  of the total population of Map Turtles live to become adults, what is the number of turtles that will become adults. Round your number to the nearest 10.

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3

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4

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A. If only  $\frac{1}{3}$  survive to adulthood, how many Snapping Turtles will become adults?

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B. If the same mother Turtle lays 30 eggs each year for 10 years, how many eggs will she have laid in total?

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5

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