**Lesson 6 Review: SA, Fractions & Integers** Name: Date:

Ma8 U3T2

**Surface Area**

1. Draw a net on grid paper for a right rectangular prism with the following measurements: Length is 6 units, width is 3 units, and height is 4 units. What is the surface area of the rectangular prism?

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1. An official hockey puck has a diameter of 7.6 cm and is 2.5 cm high. Find the surface area of the puck.
2. Determine the number of square meters of vinyl needed to line the inside of a right rectangular swimming pool. The pool is 7 m long, 4 m wide, and has a uniform depth of 2.5m.
3. Cho and her dad are building a skateboard launch ramp. They decide on the following measurements: The base of the ramp will be 1.2 m wide and 2.1 m long; the height of the ramp is 0.9 m.
	1. Use Pythagoras to figure out the length of the ramp. HINT: Draw a diagram. Show all your steps!
	2. How much plywood will they need to make the ramp?
4. Each side of a wooden cube is 5 cm long. Riley drills a cylindrical hole with a diameter of 4 cm through the cube. What is the total surface area of the remaining part if Riley wants to spray paint all the surfaces including inside the hole?

**Fraction Operations –**

*answer the following questions by writing an arithmetic expression and showing all your work*

1. The time from when a bird lays an egg to when the egg hatches is called the incubation time. For a pigeon egg, the incubation time is 18 days.
	1. For a chicken egg, the incubation time is $\frac{7}{6}$ of the incubation time for a pigeon egg. Determine the incubation time for a chicken egg.
	2. For a warbler egg, the incubation time is $\frac{7}{9}$ of the incubation time for a pigeon egg. Determine the incubation time for a warbler egg.
2. At the end of a party, half of a cake is left over. Five people decide to share the leftover cake equally and take their share home. What fraction of cake does each person take home? Show your solution using a diagram and using fraction operations.
3. The Indian Ocean covers about $\frac{1}{7}$ of the Earth’s surface. The area of the Pacific Ocean is about $2\frac{1}{3}$ times the area of the Indian Ocean. What fraction of Earth surface does the Pacific Ocean cover?

**Integers**

1. Complete each statement

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| 1. $\left(+5\right)×\left(\right)=+15$
 | 1. $\left(\right)×\left(-2\right)=+28$
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| 1. $\left(+20\right)÷\left(\right)=-4$
 | 1. $\left(-21\right)÷\left(\right)=+7$
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1. List all the pairs of integers that have a product of $\left(-60\right)$.
2. Dave is paying off a $340 loan at $25/month. After paying for six months, how much does he still owe? Show your working using an arithmetic expression.
3. Len’s car uses 11L of gasoline per 100 km of city driving and 8 L of gasoline per 100 km highway driving. One month, he drove 600 km in the city and 1500 km on the highways. How much gasoline did he use? Write an arithmetic expression to show your work.