Balanced Assessment *in* Mathematics

6

These tasks give you a chance to show how you reason and solve mathematical problems.

Please show your work and reasoning in the spaces provided.

Name: _____   Male Female

School: _____ City: _____

Teacher: _____ Grade: _____

Date: _____

Do not write in the box below:

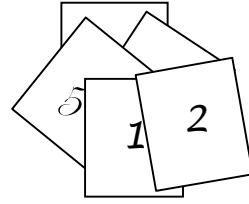| 6	Activity Day 8	Fractions 10	Juice 6	At the Laundromat 8	Tiling Patterns 8	Total 40
10						

Activity Day

This problem gives you the chance to:
• Work with probabilities

Dolots School is planning an activity day.

Each student has a blank card.
Each student randomly chooses a number from 1 through 5.
Then writes this number on their card.

1. What is the probability that Avery writes the number 4 on his card?

   _____

2. All the students who write a prime number on their card will travel by school bus for their activity day.
   What is the probability that Chas will travel by school bus for his activity day?

   _____

   Explain clearly how you decided.

   _____

   _____

3. There are 30 students in the class.
   How many students do you expect to travel on the school bus for their activity day?

   Show how you figured it out.   _____

4. Do you think it is possible that 15 of the 30 students in the class will write the number 1 on their card?

   _____

   Explain clearly how you made your decision.

   _____

   _____

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Fractions

This problem gives you the chance to:
• work with fractions

The table shows some fraction statements. Some are correct and some are wrong!

If you think that a statement is correct, check it ($\checkmark$) and give another example.

If you think it is wrong, cross it (**X**) and show the right answer.

The first one has been done for you.

	Statement	$\checkmark$ or **X**	Correct answer or another example
1.	$\dfrac{2}{5} \times \dfrac{3}{7} = \dfrac{2 \times 3}{5 \times 7} = \dfrac{6}{35}$	$\checkmark$	$\dfrac{1}{4} \times \dfrac{2}{5} = \dfrac{2}{20}$
2.	$\dfrac{2}{5} + \dfrac{3}{7} = \dfrac{2+3}{5+7} = \dfrac{5}{12}$		
3.	$\dfrac{2+3}{3+4}$ is between $\dfrac{2}{3}$ and $\dfrac{3}{4}$		
4.	$30 \div \dfrac{1}{2} = 15$		
5.	$\dfrac{2}{5}$ as a percent is $\dfrac{200}{5}\%$		
6.	$\dfrac{3}{4}$ as a decimal is 3.4		

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Juice

This problem gives you the chance to:
• solve a contextualized problem

Small glasses, large glasses and jugs are filled with juice.

Four small glasses contain a total of 20 ounces of juice.

One small glass, one large glass and one jug contain a total of 33 ounces of juice.

Two small glasses and two large glasses contain a total of 26 ounces of juice.

What is the total amount of juice contained in four small glasses, two large glasses and one jug?

_____ ounces

Explain how you figured it out.

_____

_____

_____
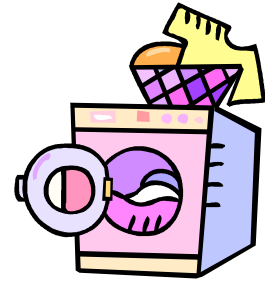
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6

Juice

At the Laundromat

This problem gives you the chance to:
• work with money in a real life situation

At the Laundromat everything has to be paid for using 25¢ coins.

There is a machine that will change $1, $5 and $10 bills into 25¢ coins.

WASH	$2.50
DRY	25¢ for 15 minutes

1. Floyd has 2 loads to wash.
   How many 25¢ coins will he need?
   Show how you figured it out.

   _____

2. Marge wants to wash and dry one load of clothes. She expects it to take half an hour to dry.
   How many 25¢ coins will she need to wash and dry her load?
   Show how you figured it out.

   _____

3. Jesse has seven $1 bills, two $5 bills and three 25¢ coins.

   She has three loads to wash and expects them to take $\frac{1}{2}$ hour, $\frac{1}{2}$ hour and $\frac{3}{4}$ hour to dry them.

   How much will she spend?

   _____

   She wants to be left with as few coins as possible.

   What money will she have left?

   _____ $5 bills

   _____ $1 bills

   _____ 25¢ coins

   Explain how you figured it out.

   _____

   _____

   _____

8

At the Laundromat

Tiling Pattern

This problem gives you the chance to:
• work with shapes

Imagine that you have just discovered this ancient floor tiling pattern in Syria.

You telephone New York to tell them about this exciting discovery.

Describe the pattern as accurately as you can, so that someone else can draw it without seeing it.

Describe the shapes as completely as you can.

_____

_____

_____

_____

_____

_____

_____

_____