N4 N5 Common assessment Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**MULTIPLE CHOICE**

1. In the parking lot there are two types of vehicles: cars and trucks. There are 30 vehicles in

total and six of them are trucks. What is the ratio of cars to the total number of vehicles?

a) 6: 30 b) 30 : 6 c) 24 : 30 d) 30 : 24

**2.** Determine the number of students in the class if the ratio of boys to girls in a grade 8 classroom is 6:4 and there are 12 girls in the class. How many boys would there be in the class?

a) 12 b) 18 c) 10 d) 24

**3.** Fran bought 3 cans of soup for $1.50. At this rate, how much will 7 cans cost?

a) $4.50 b) $10.50 c) $7.00 d) $3.50

**4.** In Mary’s closet, there are 5 t-shirts, 3 pairs of shorts and 6 sweatshirts. Which is **not** a ratio that could represent Mary’s clothes.

1. 5:6 b) 6 : 13 c) 3:6 d) 5:9

**5**. A car travelled 20km in 15min. How far will it travel in 1 hour?

1. 40 km b) 60 km c) 20 km d) 80 km

OPEN CONSTRUCTED RESPONSES

1. Look at the shapes below.

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**a)** Write each ratio.

**i)** squares to triangles \_\_\_\_\_\_\_\_\_\_\_\_\_ **ii)** circles to squares to triangles \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**iii)** triangles to circles and squares \_\_\_\_\_\_\_\_ **iv)** circles to the total number of shapes \_\_\_\_\_\_

1. Which shape could you add to the above diagram to show a ratio 3:10? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2.** Find the missing number in each pair of equivalent ratios.

**a)** 36:4 = \_\_\_\_\_ :2 **b)** 36:4 = \_\_\_\_\_\_:5

**c)** 5:15:25 = 15:\_\_\_\_:75 **d)** \_\_\_\_\_:12:36 = 8:4:12

**3.** In a recent basketball game, Les made 3 of 5 free throws, Janice made 2 of 3 free throws, and

Kim made 6 of 12 free throws. Who played best? Explain.

**4.** Express as a unit rate.

**a)** A car travelled 120 km in 2 h. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**b)** Sean’s heart beats 23 times in 20 s.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**c)** An employee made $48.00 for 4 h work.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**d)** A hockey player scored 36 goals in 9 games. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5**. Which is a better buy? Show your work.

1. 5 apples for $ 1.99 or 8 apples for $2.99.
2. 8 pencils for $ 3.49 or 24 pencil for $ 9.29.

**6.** A 6-pack of juice boxes costs $3.99.   
A 12-pack costs $5.99.   
A 24-pack costs $9.99.   
A person wants to buy 144 juice boxes.

**a.** What is the **least** expensive way to do this?

What do 144 juice boxes cost? Justify your answer**.**

b. What is the **least** expensiveway to do this, if this person had to buy 158 boxes? Justify your

answer.

N4 N5 Common assessment Name/Nom: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

MULTIPLE CHOICE – CHOIX MULTIPLES

**1.** In the parking lot there are two types of vehicles: cars and trucks. There are 30 vehicles in total

and six of them are trucks. What is the ratio of cars to the total number of vehicles?

*Dans le stationnement il y a 2 genres de véhicules; voitures et camions. Il y a 30 véhicules en tout*

*et six d’entre eux sont des camions. Quel est le rapport entre les voitures et le total des véhicules?*

a) 6: 30 b) 30 : 6 c) 24 : 30 d) 30 : 24

**2.** Determine the number of students in the class if the ratio of boys to girls in a grade 8 classroom is

6:4 and there are 12 girls in the class. How many boys would there be in the class?

Détermine le nombre d’étudiants dans la classe si le rapport de garçons aux filles dans la classe de

8e année est de 6 : 4 et il y a 12 filles dans la classe. Combien de garçons y a-t-il dans la classe?

a) 12 b) 18 c) 10 d) 24

**3.** Fran bought 3 cans of soup for $1.50. At this rate, how much will 7 cans cost?

Fran achète 3 cannettes de soupe pour 1.50$. À ce taux, combien coûteront 7 cannettes de

soupe?

a) $4.50 b) $10.50 c) $7.00 d) $3.50

4. In Mary’s closet, there are 5 t-shirts, 3 pairs of shorts and 6 sweatshirts. Which is **not** a ratio that could represent Mary’s clothes.

Dans la garde-robe de Marie, il y a 5 camisoles, 3 paires de culottes courtes et 6 chandails. Lequel n’est pas un rapport qui pourrait représenter son garde-robe?

1. 5:6 b) 6 : 13 c) 3:6 d) 5:9

5. A car travelled 20km in 15min. How far will it travel in 1 hour?

Une voiture roule 20km dans 15 minutes. Quelle distance ferait-elle dans 1 heure?

1. 40 km b) 60 km c) 20 km d) 80 km

OPEN CONSTRUCTED RESPONSES / QUESTIONS À DÉVELOPPER

1. Look at the shapes below. *Regarde les formes suivantes.*

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**a)** Write each ratio.

**i)** squares to triangles \_\_\_\_\_\_\_\_\_\_\_\_\_ **ii)** circles to squares to triangles \_\_\_\_\_\_\_\_\_\_\_\_

*carrés aux triangles* *cercles aux carrés aux triangles*

**iii)** triangles to circles and squares \_\_\_\_\_\_\_\_ **iv)** circles to the total number of shapes \_\_\_\_\_

*triangles aux cercles aux carrés* *cercles au nombre total des formes*

1. Which shape could you add in the above diagram to show a ratio 3:10? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Quelle forme peux-tu ajouter au groupe montré afin d’avoir un rapport de 3 : 10 ?*

1. Find the missing number in each pair of equivalent ratios.

*Trouve le nombre manquant qui rend chaque pair de rapport équivalant.*

**a)** 36:4 = \_\_\_\_\_ :2 **b)** 36:4 = \_\_\_\_\_\_:5

**c)** 5:15:25 = 15:\_\_\_\_:75 **d)** \_\_\_\_\_:12:36 = 8:4:12

1. In a recent basketball game, Les made 3 of 5 free throws, Janice made 2 of 3 free throws, and Kim made 6 of 12 free throws. Who played best? Explain.

*Durant un jeu de ballon panier, Léo a réussi 3 des 5 lancers, Janie a réussi 2 des 3 lancers et Kim a réussi 6 des 12 lancers. Qui est le meilleur lanceur? Explique.*

**4.** Express as a unit rate. Exprime comme un taux unitaire.

**a)** A car travelled 120 km in 2 h.

*Une voiture qui roule 120km dans 2h*. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**b)** Sean’s heart beats 23 times in 20 sec.

*Le Coeur de Sean bat 23 fois dans 20 secs*. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**c)** A employee made $48.00 for 4 h work.

*Un employé fait 48$ pour 4h de travail.* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**d)** A hockey player scored 36 goals in 9 games.

*Un joueur de hockey compte 36 buts dans 9 parties.* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Which is a better buy? Show your work. Lequel est le meilleur achat? Montre ton travail.

a) 5 apples for $ 1.99 or 8 apples for $2.99. 5 pommes pour 1.99$ ou 8 pommes pour 2.99$

b) 8 pencils for $ 3.49 or 24 pencil for $ 9.29. 8 crayons pour 3.49$ ou 24 crayons pour 9.29?

1. A 6-pack of juice boxes costs $3.99. *Un paquet de 6 boites de jus coûte 3.99$.*  
   A 12-pack costs $5.99. *Un paquet de 12 boites de jus coûte 5.99$.*  
   A 24-pack costs $9.99. *Un paquet de 24 boîtes de jus coûte 9.99$.*  
   A person wants to buy 144 juice box. *Une personne veut acheter 144 boîtes de jus.*

1. What is the **least** expensive way to do this? *Lequel est le* **meilleur rabais***?*

What do 144 juice boxes cost? Combien coûteraient 144 boîtes de jus?

Justify your answer. Justifie ta réponse.

1. What is the **least** expensive way to do this, if this person had to buy 158 boxes? Justify your answer.

Lequel est le **meilleur rabais** si cette personne achèterait 158 boîtes de jus? Justifie ta réponse.

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