Name: _____ Date: _____

Placement Test for Primary Mathematics 6A

1. Which of the following is **not** a factor of 84? [1]

   Ⓐ 3 Ⓑ 4 Ⓒ 8 Ⓓ 1

2. Which of the following lists all the factors of 96? [1]

   Ⓐ 1, 2, 3, 8, 12, 32, 48, 96

   Ⓑ 1, 2, 3, 6, 8, 16, 24, 32, 48, 96

   Ⓒ 1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96

   Ⓓ 1, 2, 3, 6, 8, 12, 16, 24, 32, 48, 96, 192

3. Which of the following is not a multiple of 14? [1]

   Ⓐ 21 Ⓑ 28 Ⓒ 42 Ⓓ 70

4. Which of the following is a composite number? [1]

   Ⓐ 13 Ⓑ 19 Ⓒ 31 Ⓓ 48

5. List the prime numbers between 1 and 10. [1]

   _____, _____, _____, _____

6. List the prime numbers between 20 and 30. [1]

   _____, _____

7. List the first 10 multiples of each number. [2]

(a) 7, _____, _____, _____, _____, _____, _____, _____, _____, _____

(b) 9, _____, _____, _____, _____, _____, _____, _____, _____, _____

8. Is 2 a factor of 96? How can you find out without dividing? [2]

9. Estimate each sum. Select all the sums that are greater than 1. [1]

Ⓐ $\frac{5}{6}+\frac{1}{7}$ Ⓑ $\frac{3}{5}+\frac{5}{8}$

Ⓒ $0.66+0.53$ Ⓓ $0.468+0.498$

10. Estimate each quotient. Select all the quotients that are less than 1. [1]

Ⓐ $6\frac{1}{2}\div 5$ Ⓑ $2\frac{5}{7}\div 5$

Ⓒ $0.85\div 0.5$ Ⓓ $4.6\div 5$

11. Estimate each product and fill in the blanks with **<** or **>**. Explain why each product is greater or less than 2. [3]

(a) $\frac{3}{5}\times 2$ ◯ 2 because _____.

(b) $1\frac{2}{3}\times 2$ ◯ 2 because _____.

(c) 1.85×2 ◯ 2 because _____.

12. Solve. [4]

(a) $\frac{3}{8} + \frac{3}{4} =$

(b) $\frac{2}{3} - \frac{1}{5} =$

(c) $\frac{3}{7} \times \frac{2}{5} =$

(d) $\frac{4}{9} \div 8$

13. Solve. [4]

(a) $3.6 \times 10 =$

(b) $3.6 \times 100 =$

(c) $3.6 \div 10 =$

(d) $3.6 \div 100 =$

14. Solve. [6]

(a) $4.14 + 0.98 =$

(b) $6.87 - 5.56 =$

(c) $7 \times 0.05 =$

(d) $0.23 \times 0.5 =$

(e) $2.5 \div 5 =$

(f) $0.25 \div 0.5 =$

15. Express the decimals as fractions in simplest form. [3]

(a) 0.75 =

(b) 56.005 =

(c) 60.825 =

16. Express the fractions as decimals. [4]

(a) $\frac{1}{8} =$

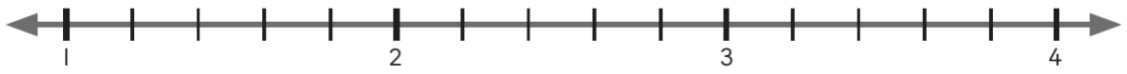
(b) $3\frac{4}{5} =$

(c) $2\frac{7}{20} =$

(d) $3\frac{2}{100} =$

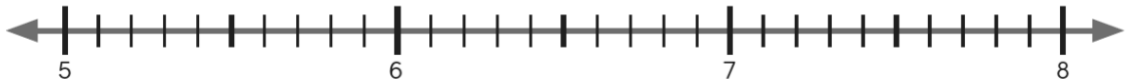
17. Mark and label the fractions on the number line. [4]

$2\frac{4}{5}$ $3\frac{1}{2}$ $1\frac{3}{10}$ $3\frac{9}{10}$



18. Mark and label the decimals on the number line. [4]

6.25 7.3 5.85 5.05



19. Write **<** , **=**, or **>**. [4]

(a) $\frac{2}{3}$ ◯ $\frac{3}{4}$

(b) $\frac{3}{10}$ ◯ $\frac{1}{4}$

(c) $2\frac{3}{5}$ ◯ $2\frac{3}{7}$

(d) $1\frac{1}{7}$ ◯ $\frac{8}{7}$

20. Order the decimals from least to greatest. [1]

23.908 23.098 23.98 23.809

_____, _____, _____, _____

least greatest

21. Order the numbers from greatest to least. [1]

0.49 $\frac{4}{5}$ 0.9 $\frac{2}{3}$

_____, _____, _____, _____

greatest least

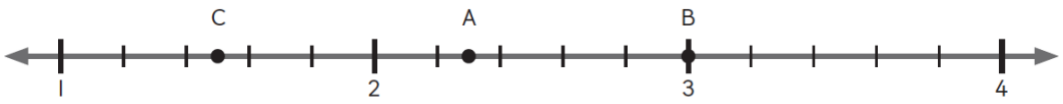
22. Which of the following number is not equivalent to $\frac{3}{5}$? [1]

Ⓐ 0.35 Ⓑ 0.6

Ⓒ $\frac{6}{10}$ Ⓓ $\frac{30}{50}$

23. Write $7\frac{2}{3}$ as an improper fraction. [1]

24. [2]



(a) Which point is further from point A on the number line, B or C?

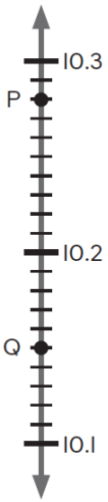
(b) What is the distance between points B and C?

25. Find the distance between P and Q on the number line. [2]

(a)

The distance is _____ units.

(b)



The distance is _____ units.

26. Fill in the missing values. [6]

(a) $\frac{4}{16} = \frac{\quad}{8}$

(b) $\frac{3}{7} = \frac{\quad}{21}$

(c) $\frac{\quad}{24} = \frac{6}{8}$

(d) $\frac{2}{\quad} = \frac{6}{15}$

(e) $\frac{24}{\quad} = \frac{24}{36}$

(f) $\frac{15}{40} = \frac{3}{\quad}$

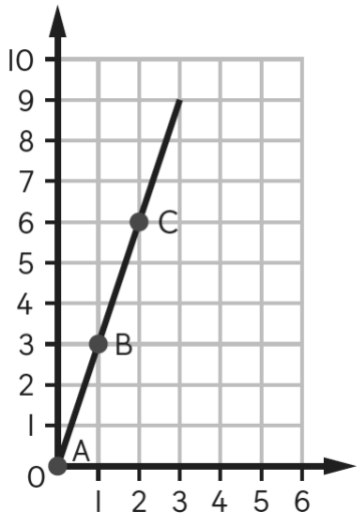
27. Express the fractions in simplest form. [3]

(a) $\frac{24}{42} =$

(b) $\frac{27}{36} =$

(c) $\frac{35}{70} =$

28. Write the coordinates of the points that the line passes through. [3]



(a) Point A: _____

(b) Point B: _____

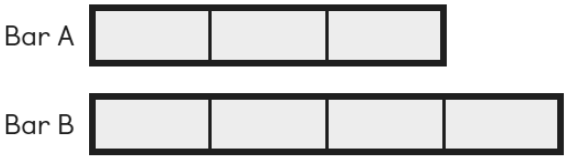
(c) Point C: _____

29. Multiply. [2]

(a) $\frac{2}{3} \times 270 =$

(b) $\frac{5}{12} \times 56 =$

30. Express the length of one bar as a fraction of the other. [2]



(a) The length of Bar A is _____ of the length of Bar B.

(b) The length of Bar B is _____ of the length of Bar A.

31. Divide. [3]

(a) $2.64 \div 11 =$

(b) $3.36 \div 12 =$

(c) $4.94 \div 19 =$

32. Order the answers in Question 31 from least to greatest. [1]

_____, _____, _____

least greatest

33. Divide. Round the answer to the nearest cents. [1]

$\$2.48 \div 12 =$ _____ ¢

34. Which of the following multiplication equations is true? [1]

Ⓐ $\frac{2}{3} \times 144 = 96$

Ⓑ $1\frac{1}{4} \times 240 = 60$

Ⓒ $2\frac{1}{5} \times 150 = 900$

Ⓓ $\frac{3}{8} \times 720 = 90$

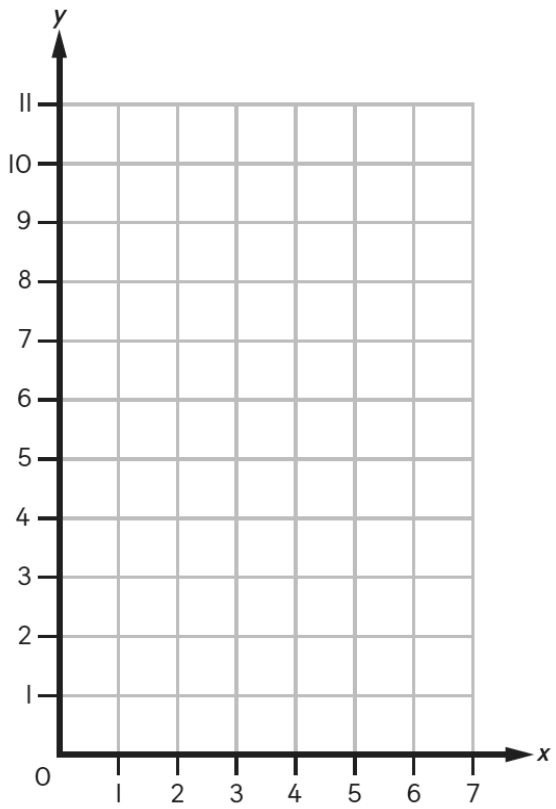
35. At a party, there are 6 children for every 2 adults. How many children are there for every 1 adult? [1]

36. Complete the table. [3]

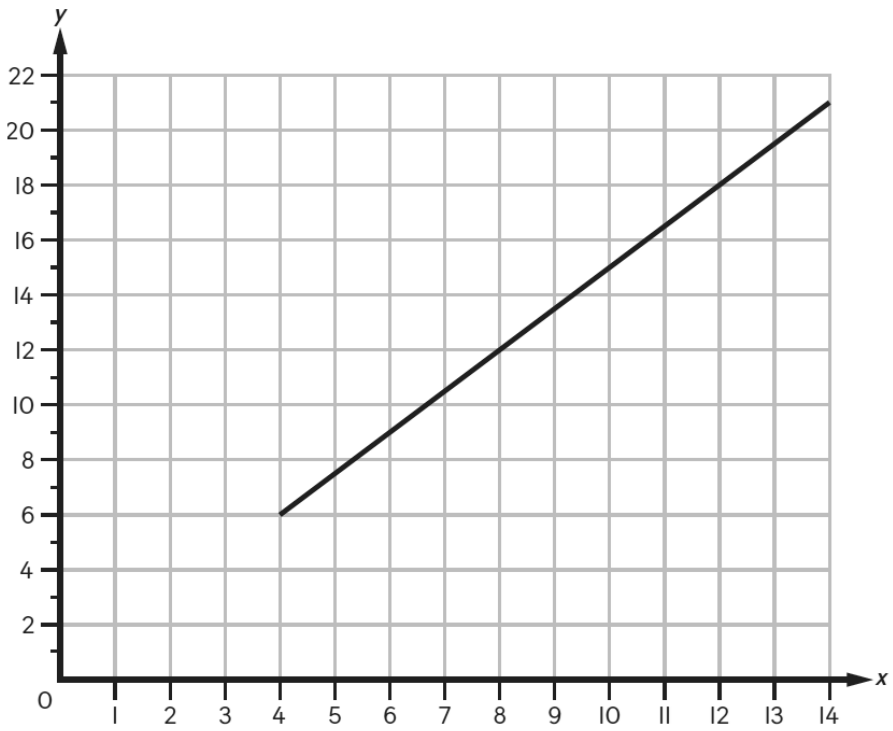
Number of Action Figures	1	2		13
Cost	$2.50		$12.50	

37. Plot the ordered pairs to make a line graph. [4]

x	0	2	4	6
y	2	5	8	11



38. Use the graph to fill in the missing values in the table. [6]



x	4	6			12	
y	6		12	15		21

Extend the line to meet the x-axis.

Does the line pass through the point (0, 0)?

39. Which of the following is the product of $\frac{1}{3} \times 6$? [1]

Ⓐ $\frac{1}{18}$ Ⓑ $\frac{6}{18}$

Ⓒ $\frac{6}{3}$ Ⓓ $\frac{3}{6}$

40. Express 0.95 as a fraction. [1]

Ⓐ $\frac{9}{5}$ Ⓑ $\frac{95}{10}$

Ⓒ $\frac{9}{50}$ Ⓓ $\frac{95}{100}$

41. A scanner can scan 30 pages in $\frac{1}{2}$ hour. At this rate, how many pages can it scan in $1\frac{1}{2}$ hours? [1]

Ⓐ 120 Ⓑ 60

Ⓒ 90 Ⓓ 40

42. Fill in the missing numbers. [4]

(a) $\frac{1}{5} = \frac{\quad}{100}$ (b) $\frac{3}{4} = \frac{\quad}{100}$

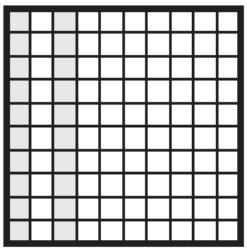
(c) $\frac{4}{25} = \frac{\quad}{100}$ (d) $\frac{14}{200} = \frac{\quad}{100}$

43. Write the decimals as fractions in simplest form. [4]

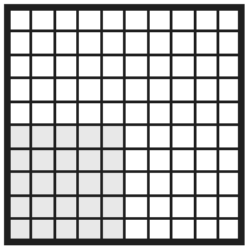
(a) 0.07 = (b) 0.99 =

(c) 0.35 = (d) 0.44 =

44. Write the decimals as fractions in simplest form. [2]

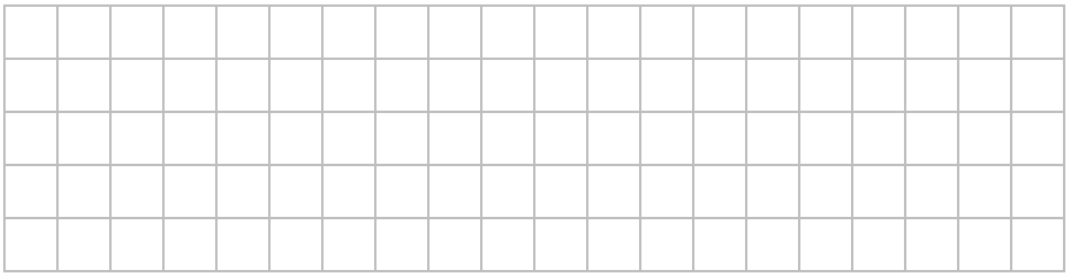
(a) 

_____

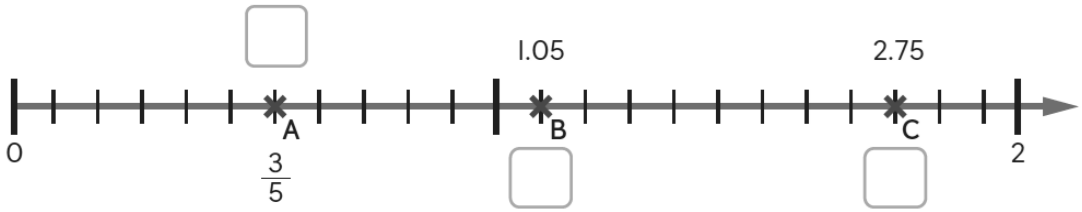
(b) 

_____

45. Shade $\frac{2}{5}$ of the rectangle. [1]



46. Write the missing decimals and fractions represented by points A, B, and C on the number line. [3]



47. 6 out of 48 apples are green. The rest of the apples are red. What fraction of the apples are green? [1]

48. A store gives a discount of $1 for every $10 spent. How much will a customer save if he spends $40? [1]

49. The ratio of the number of adults to children at a carnival is 4 : 5. What fraction of the people are children? [1]

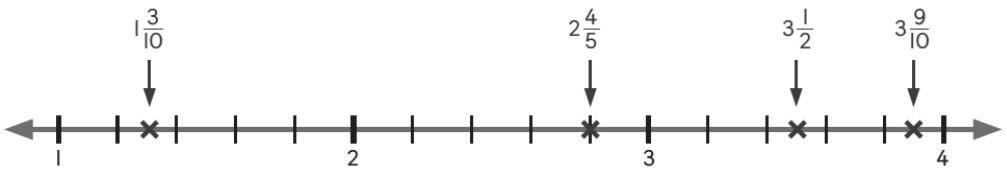
50. Michelle donates $5 to charity for every $100 she earns. How much will Michelle donate if she earns $600? [1]

51. Water is drained from a tank at the rate of 80 liters every 4 minutes. How many liters of water will be drained from the tank in 7 minutes? [1]

52. The ratio of the number of cars to the number of trucks at a parking lot is 7 : 3. There are 84 cars. How many vehicles are there in all at the parking lot? [1]

Answer Key

1. C
2. C
3. A
4. D
5. 2, 3, 5, 7
6. 23, 29
7. (a) 14, 21, 28, 35, 42, 49, 56, 63, 70
   (b) 18, 27, 36, 45, 54, 63, 72, 81, 90
8. 96 is an even number, so 2 is a factor of 96.
9. B, C
10. B, D
11. (a) <, $\frac{3}{5}$ is less than 1
    (b) >, $1\frac{2}{3}$ is greater than 1
    (c) >, 1.85 is greater than 1
12. (a) $1\frac{1}{8}$ (b) $\frac{7}{15}$
    (c) $\frac{6}{35}$ (d) $\frac{1}{18}$
13. (a) 36 (b) 360
    (c) 0.36 (d) 0.036
14. (a) 5.12 (b) 1.31
    (c) 0.35 (d) 0.115
    (e) 0.5 (f) 0.5
15. (a) $\frac{3}{4}$ (b) $56\frac{1}{200}$ (c) $60\frac{33}{40}$
16. (a) 0.125 (b) 3.8
    (c) 2.35 (d) 3.02
17.



18.

19. (a) < (b) >
    (c) > (d) =

20. 23.098, 23.809, 23.908, 23.98

21. $0.9, \frac{4}{5}, \frac{2}{3}, 0.49$

22. A

23. $\frac{23}{3}$

24. (a) C (b) 3.5 + 4 = 7.5 units

25. (a) 9.3 – 7.8 = 1.5
    1.5
    (b) 10.28 – 10.15 = 0.13
    0.13

26. (a) 2 (b) 9 (c) 18
    (d) 5 (e) 36 (f) 8

27. (a) $\frac{4}{7}$ (b) $\frac{3}{4}$ (c) $\frac{1}{2}$

28. (a) (0, 0) (b) (1, 3) (c) (2, 6)

29. (a) 180 (b) $23\frac{1}{3}$

30. (a) $\frac{3}{4}$ (b) $1\frac{1}{3}$

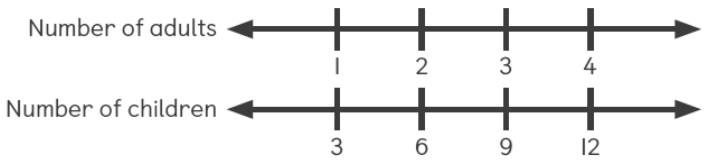
31. (a) 0.24 (b) 0.28 (c) 0.26

32. 0.24, 0.26, 0.28

33. 21

34. A

35.

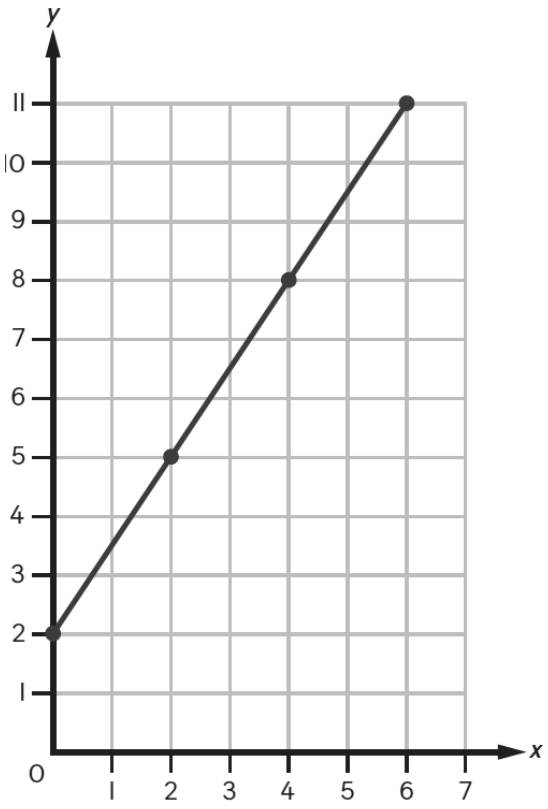


There are 3 children for every 1 adult.

36.

Number of Action Figures	1	2	5	13
Cost	$2.50	$5	$12.50	$32.50

37.



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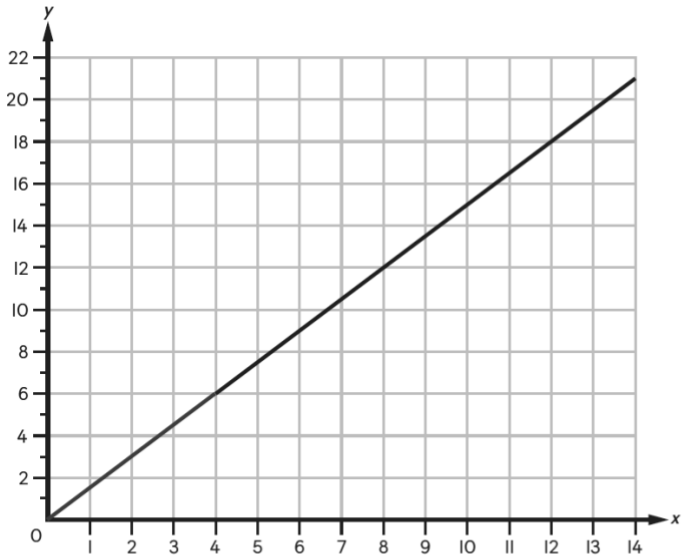


x	4	6	8	10	12	14
y	6	9	12	15	18	21

yes

39. C

40. D

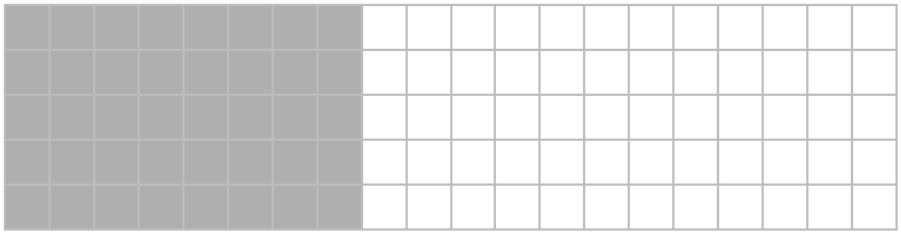
41. C

42. (a) 20 (b) 75
(c) 16 (d) 7

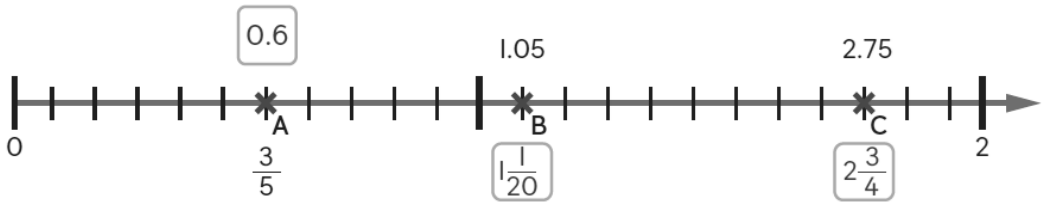
43. (a) $\frac{7}{100}$ (b) $\frac{99}{100}$
(c) $\frac{7}{20}$ (s) $\frac{11}{25}$

44. (a) $\frac{1}{5}$ (b) $\frac{1}{4}$

45. Drawings vary. Example:



46.



47. $\frac{1}{8}$ of the apples are green.

48. The customer will save $4.

49. $\frac{5}{9}$ of the people are children.

50. Michelle will donate $30.

51. 140 liters of water will be drained in 7 minutes.

52. There are 120 vehicles in all at the parking lot.