Number and word problems

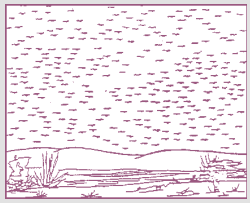
Approach: Independent

Level: Year 4 and year 8

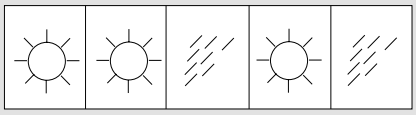
Resources: None

Questions/instructions:

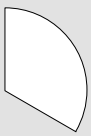
Put a ring around the letter beside the best answer or write your answer on the line. You may write on these pages when working out your answer.



		% responses y4	% responses y8
1. Look at this picture of birds flying. About how many birds are in the picture? Do NOT count them - only estimate. a. Less than 100 b. Between 100 and 1 000 c. More than 1 000 d. More than 10 000	b	57	81
2. What is the difference between $\frac{3}{4}$ and $\frac{1}{4}$? a. $\frac{3}{4}$ c. $\frac{1}{4}$ b. $\frac{1}{2}$ d. 2	b	24	55



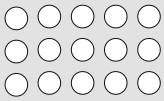
3. The chart shows … a. $\frac{1}{3}$ of the days sunny b. $\frac{1}{2}$ of the week sunny c. $\frac{3}{5}$ of the days sunny d. $\frac{1}{3}$ of the days rainy	c	31	82
4. Which part of the circle is missing? a. $\frac{1}{2}$ b. $\frac{1}{4}$ c. $\frac{1}{3}$ d. $\frac{2}{3}$	d	34	74



5. A class has 35 pupils. $\frac{1}{5}$ come by bus, $\frac{2}{5}$ come by bike. How many come by other means? a. 7 b. 14 c. 20 d. 21	b	25	55

		% responses y4	% responses y8
6. A chocolate bar 13cm long is cut into 2 equal pieces. How long will each piece be?		23	78
7. Jean is 5cm taller than Mary. Mary is 1.65 metres tall. How tall is Jean?		35	79

8.



Write a multiplication sentence to find the number of circles. 27 72

9. Which of the following is closest to 15 seconds? a. 14.1 seconds b. 14.7 seconds c. 14.9 seconds d. 15.2 seconds	c	36	86

10. To cook a meal for 12 people I need:

		% responses y4	% responses y8
12 chops	6 chops	47	87
6 tomatoes	3 tomatoes	33	84
18 potatoes	9 potatoes	25	78
1500g peas	750g peas	4	46

I want to cook a meal for 6 people. Fill in the amounts of food I need.

11. How much of the region is shaded?

		% responses y4	% responses y8
as a fraction	1/2	38	58
	15/30, 3/6	7	21
as a decimal			49
as a percentage			62

12. How much of the region is shaded?

		% responses y4	% responses y8
as a fraction	1/5	10	46
	5/30	5	19
as a decimal			26
as a percentage			38

13. How much of the region is shaded?

		% responses y4	% responses y8
as a fraction	2/3	3	41
	20/30,4/6	11	23
as a decimal			7
as a percentage			6

% responses

y4

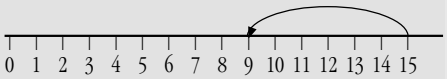
14. 2000 + 300 + 60 + 7 =
    a. 2 367
    b. 20 367 — a — 40
    c. 23 067
    d. 23 607

15. Which is one million?
    a. 10 000
    b. 100 000 — c — 39
    c. 1 000 000
    d. 10 000 000

16. Which number is greatest?
    a. 2 573
    b. 2 537 — c — 56
    c. 2 753
    d. 2 735

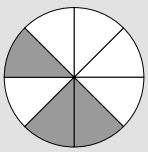
17. Which is an even number?
    a. 225
    b. 233 — c — 33
    c. 370
    d. 391

18. What is 18 565 rounded to the nearest thousand?
    a. 18 000
    b. 18 600 — c — 15
    c. 19 000
    d. 20 000



19. Which is shown on the number line?
    a. 6 + 9 = 15
    b. 15 - 9 = 6 — c — 16
    c. 15 - 6 = 9
    d. 9 + 6 = 15

20. Which part of the region is shaded?



    a. $\frac{1}{3}$
    b. $\frac{2}{5}$
    c. $\frac{3}{6}$
    d. $\frac{5}{8}$

    — b — 28

21. How many thirds are equal to one whole?
    a. $\frac{1}{3}$
    b. 1 — d — 35
    c. 2
    d. 3

22. Which fraction is equivalent to $\frac{1}{2}$?
    a. $\frac{1}{3}$
    b. $\frac{1}{4}$ — c — 20
    c. $\frac{2}{4}$
    d. $\frac{2}{3}$

% responses

y4

23. Joe has 35 stamps. He buys 42 more. How many does he have altogether?
    a. 7
    b. 35 — d — 81
    c. 42
    d. 77

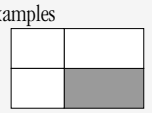
24. A box holds 12 eggs. How many eggs in 7 boxes?
    a. 5
    b. 19 — c — 68
    c. 84
    d. 714

25. Marbles are sold in packets of 10. Tim bought 3 packets and Sue bought 2 packets. How many marbles did they buy altogether?
    a. 5
    b. 12 — d — 62
    c. 32
    d. 50

26. 6 children shared 26 sweets. Each got the same number. How many were left over?
    a. 20
    b. 4 — c — 26
    c. 2
    d. 0

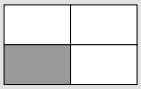
27. Look at the shaded part of each shape. Is it a quarter?

Examples



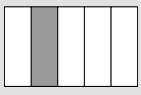
Is it a quarter? ***no***

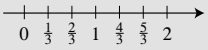
Is it a quarter? ***yes***

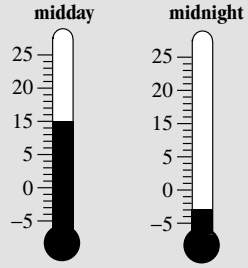
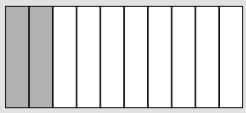
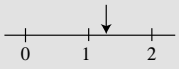
a. Is it a quarter?  — yes — 71

b. Is it a quarter?  — no — 56

c. Is it a quarter?  — no — 70

d. Is it a quarter?  — yes — 67

		% responses y8
28. The number 4^5 can be renamed as … a. 4×5 b. $4 + 4 + 4 + 4 + 4$ c. $4 \times 4 \times 4 \times 4 \times 4$ d. $5 + 5 + 5 + 5$	c	53
29. Another name for 27 is … a. 3^9 b. 9^3 c. 3^3 d. $13\frac{1}{2}$	c	26
30. Which is another name for 4×10^3? a. $4 \times (3 \times 10)$ b. $4 \times (10 + 3)$ c. 40×3 d. 4000	d	23
31. If $1\frac{1}{3}$ cups of flour are needed for a batch of cookies, how many cups of flour will be needed for 3 batches? a. $4\frac{1}{3}$ b. 4 c. 3 d. $2\frac{2}{3}$	b	58
32. The weight of an object on the Moon is $\frac{1}{6}$ the weight of that object on the Earth. An object that weighs 30 kg on Earth would weigh how many kg on the Moon?	5kg	44
33. On this number line, place a dot at the point that could represent 1.75.  		46
34. Which fraction is equivalent to $\frac{1}{4}$? a. $\frac{4}{8}$ b. $\frac{5}{12}$ c. $\frac{5}{16}$ d. $\frac{5}{20}$	d	57
35. Which is another name for $\frac{27}{6}$? a. $4\frac{1}{2}$ b. $2\frac{5}{6}$ c. $7\frac{1}{3}$ d. $3\frac{1}{6}$	a	35
36. A store sells 168 cassettes each week. How many cassettes does it sell in 24 weeks? a. 7 b. 192 c. 4 032 d. 4 172	c	74

		% responses y8
37. Christy has 88 photographs to put in her album. If 9 photographs fit on each page, how many pages will she need? a. 8 c. 10 b. 9 d. 11	c	60
38. Add 6 to –12. The answer is… a. –6 b. 6 c. –18 d. 18	a	53
39.  At midday the thermometer read 15°C. At midnight it read –3°C. By how many degrees had the temperature dropped?	18°	56
40. A total of 10 597 people went to an outdoor concert. When it began to rain, 1 694 people left the concert? About how many people remained at the concert? a. 900 b. 8 000 c. 9 000 d. 12 000	c	66
41. Which number is between .07 and .08? a. .008 b. .06 c. .075 d. .75	c	50
42. Write this number as a decimal. $3\ \frac{3}{10} =$		41
43. Which decimal represents the shaded part of the figure? a. 0.5 b. 0.28 c. 0.2 d. 0.02 	c	74
44. Of the following, which is the best estimate of the number the arrow points to? a. 1.2 b. 1.5 c. 1.7  	a	86