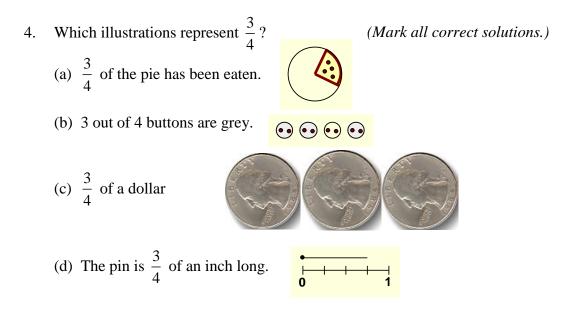
Directions: Work out and answer each question on a separate sheet of paper and mark the grade level by which the Minnesota Academic Standards in Mathematics expect students to have mastery of the concept (grades 2–6 or other) below. For more extra credit, give the standard's reference number.

1.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
2.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
3.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
4.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
5.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
6.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
7.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
8.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	
9.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	
10.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	
11.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	
12.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
13.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
14.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
15.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	
16.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
17.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
18.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
19.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
20.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
21.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
22.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	_
23.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	
24.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	
25.	Mastery by Grade Level:	(2)	(3)	(4)	(5)	(6) (other) Ref. number	

Directions: Answer each question and determine the grade level by which the Minnesota Academic Standards in Mathematics expect students to have mastery of the concept (grades 2–6 or other/7–12).

- 1. Pat has 100 more Lego blocks than Kim. Kim has 382 Lego blocks. How many Lego blocks does Pat have?
- 2. There are 17 students in your class and granola bars come 10 to a box. How many boxes do you need to order to have enough bars for everyone?
- 3. You have 27 people and 9 tables. If each table seats the same number of people, how many people will you put at each table?



- 5. A group of 324 students are going to a museum in 6 buses. If each bus has the same number of students, how many students will be on each bus?
- 6. Pat walked $\frac{5}{3}$ miles and Kim walked $1\frac{3}{4}$ miles. Compare the distances Pat and Kim walked.
- 7. Consider the solutions to the two problems: If 77 amusement ride tickets are to be distributed evenly among 4 children, how many tickets will each child receive?
 If #77 is to be list if the table of the solution of the table of the solution of the table of the solution.

If \$77 is to be distributed evenly among 4 children, how much will each child receive?

- 8. In order to work properly, a part must fit through a 0.24 inch wide space. If a part is $\frac{1}{4}$ inch wide, will it fit?
- 9. Calculate the perimeter of a soccer field when the length is 109.7 meters and the width is 73.1 meters.
- 10. If a woman making \$25 an hour gets a 10% raise, how much additional money an hour will she make?

- 11. If one trail mix consists of 2 parts peanuts to 3 parts raisins, and another consists of 4 parts peanuts to 8 parts raisins, then which mixture has a higher concentration of peanuts?
- 12. If 5 items cost \$3.75, how much does 12 items cost?
- 13. You collect 7 empty milk cartons each day for 5 days. Which pattern shows the number of cartons of milk you have collected?
 - (a) 1, 2, 3, 4, 5, resulting in a total of 5 milk cartons.
 - (b) 7, 8, 9, 10, 11, resulting in a total of 11 milk cartons.
 - (c) 5, 10, 15, 20, 25, 30, 35, resulting in a total of 35 milk cartons.
 - (d) 7, 14, 21, 28, 35, resulting in a total of 35 milk cartons.
- 14. How many more players are needed if a soccer team requires 11 players and so far only 6 players have arrived? This situation can be represented by the number sentence:
 - (a) 11 + 6 = p (b) 11 + p = 6 (c) 6 + p = 11 (d) p 11 = 6
- 15. Describe the relationship between number of chairs and number of legs.
 - (a) The number of legs is four more than the number of chairs.
 - (b) The number of legs is four times the number of chairs.
 - (c) The number of chairs is four more than the number of legs.
 - (d) The number of chairs is four times the number of legs.
- 16. The number sentence $8 \times m = 24$ could be represented by the question:
 - (a) How many more tickets need to be sold by Pat if Pat has sold 8 tickets and needs to sell a total of 24 tickets?
 - (b) How many tickets to a play are sold if 8 students each sell 24 tickets?
 - (c) How much total money is raised if you sell 8 tickets each for \$24?
 - (d) How much did each ticket to a play cost if 8 tickets totaled \$24?
- 17. A student is given these three arrangements of dots. Find the number of dots in the 10^{th} figure.



18. If \$84 is to be shared equally among a group of children, the amount of money each child receives can be determined using the number sentence:

(a) 84 - n = d (b) n - 84 = d (c) $84 \div n = d$ (d) $n \div 84 = d$

19. Which number sentence represents the number of sheets of paper remaining from a packet of 250 when each student in a class of 27 is given a certain number of sheets?

(a) $250 - b = 27$	(b) $27 \times a - 250 = b$
(c) $250 - 27 = b$	(d) $250 - 27 \times a = b$

- 20. A cellular phone company charges \$0.12 per minute. If the bill was \$11.40 in April, how many minutes were used?
- 21. Which combinations can be used to make 50 cents. (Mark all correct solutions.)
 - (a) 4 dimes and 2 nickels
 - (b) 1 quarter, 1 dime, 2 nickels, and 5 pennies
 - (c) 1 quarter, 2 dimes, and 1 nickel
 - (d) 2 quarters
- 22. Your trip began at 9:50 a.m. and ended at 3:10 p.m. How long were you traveling?
- 23. The classroom door has a width of 32 inches and length of 79 inches. Compute the area of the door.
- 24. The mean of the set of numbers 1, 1, 4, 6 can be found which of the following ways? *(Select all correct methods.)*
 - (a) It can be leveled out by taking one unit from the 4 and three units from the 6 and adding them to the 1s, making four 3s.
 - (b) $(1+1+4+6) \div 4 = 3$
 - (c) $(2 \times 1 + 4 + 6) \div 4 = 3$
 - (d) 1 is the most frequent number.
- 25. Find the probability of rolling a 5 with a balanced number cube.