

26. At least how many 2×2 uncut tiles must Pat use to cover a 7×7 section of a large floor?

- A) 13 B) 14 C) 15 D) 16

27. How many positive integers less than 1000 are multiples of 4 but do not include the digit 5?

- A) 206 B) 207 C) 208 D) 209

28. The ratio 3:5 is equal to

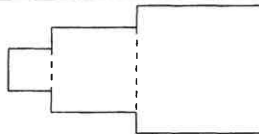
- A) $\frac{1}{3} : \frac{1}{5}$ B) 13:15 C) 30:50 D) (1+3):(1+5)

29. The sum of the positive factors of my number is less than twice my number. My number could be

- A) 12 B) 16 C) 20 D) 24

30. The figure at right is composed of squares with side-lengths of 1, 2, and 3. What is the perimeter of the figure?

- A) 18 B) 20 C) 21 D) 22



31. Brad skateboards from home to Caryn's house at 5 km/hour, then returns to his house along the same route at 7 km/hour. What is Brad's average speed, in km/hour, for the entire trip?

- A) $5\frac{5}{7}$ B) $5\frac{5}{6}$ C) 6 D) $6\frac{1}{6}$

32. $(1 \times 2 \times 3 \times \dots \times 50) - (1 \times 2 \times 3 \times \dots \times 49) = (1 \times 2 \times 3 \times \dots \times 48) \times \underline{\quad}?$

- A) 49^2 B) 50^2 C) 49 D) 50

33. There are 10 players in a chess tournament. If each game is played by 2 players, and each player plays every other player exactly once, what is the total number of games played in the tournament?

- A) 100 B) 90 C) 50 D) 45

34. Pa's Pets has 26 cats and 15 fish for sale. If 6 of the fish have spots, and if the total number of spotted cats and spotted fish is 3 times the number of cats without spots, how many of these cats and fish have spots?

- A) 8 B) 9 C) 18 D) 24



35. The 2011th digit to the right of the decimal point in the decimal representation of $\frac{1}{54}$ is

- A) 0 B) 1 C) 5 D) 8



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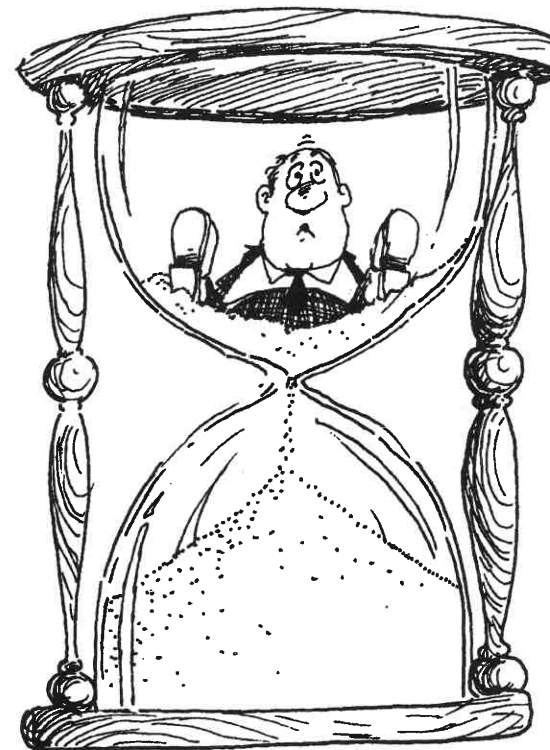
2010-2011 Annual 6th Grade Contest

Tuesday, February 15 or 22, 2011

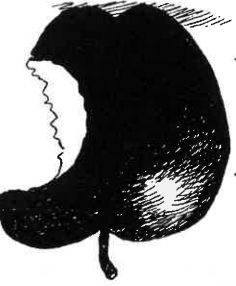
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Instructions

- **Time** Do not open this booklet until you are told by your teacher to begin. You might be unable to finish all 35 questions in the 30 minutes allowed.
- **Scores** Please remember that *this is a contest, and not a test*—there is no “passing” or “failing” score. Few students score as high as 28 points (80% correct). Students with half that, 14 points, *should be commended!*
- **Format, Point Value, & Eligibility** Every answer is an A, B, C, or D. Write answers in the *Answers* column. A correct answer is worth 1 point. Unanswered questions get no credit. You **may** use a calculator.



1.	How many letters remain in the English alphabet after you remove all of the letters in "apple"?	A) 22 B) 21 C) 20 D) 19
2.	The remainder when the sum $2011 + 201 + 20 + 2$ is divided by 10 is	A) 1 B) 2 C) 4 D) 8
3.	$888 + 444 + 222 = 222 \times \underline{\quad}$	A) 3 B) 6 C) 7 D) 8
4.	There are 60 parents watching a school play. If there are 3 times as many mothers as fathers watching, how many mothers are watching?	A) 15 B) 20 C) 40 D) 45
5.	$66 + 34 + 66 + 34 + 66 + 34 + 66 + 34 + 66 + 34 + 66 + 34 + 66 + 34 =$	A) 1000 B) 900 C) 660 D) 100
6.	Which of the following is <i>not</i> a factor of 123456?	A) 3 B) 4 C) 6 D) 7
7.	How many different prime numbers, when multiplied by 11, have an even number as their product?	A) 0 B) 1 C) 2 D) 3
8.	Which of the following must have perpendicular sides?	A) rectangle B) rhombus C) trapezoid D) parallelogram
9.	$9 \cdot 1 \times 2 + 3 \times 4 + 5 \times 6 + 7 \times 8 =$	A) 36 B) 100 C) 1256 D) 4680
10.	In 2011, the number of days in one week will be what percent of the number of days in February?	A) 4% B) 7% C) 25% D) 35%
11.	Rachel has \$200 in her piggy bank. She had 80% less money in her piggy bank last year. How much was in that bank last year?	A) \$20 B) \$40 C) \$80 D) \$160
12.	The sum of Sid's and Sue's ages is 30. If, 8 years ago, Sid was as old as Sue was 2 years ago, then how old is Sid now?	A) 12 B) 18 C) 22 D) 28
13.	$62011 + 62011 + 62011 + 62011 + 62011 + 62011 =$	A) 62012 B) 62016 C) 362011 D) 362016



14.	Betaburg's bus lines are numbered starting at 33 and ending at 66, counting by 3s. How many bus lines does Betaburg have?	A) 14 B) 13 C) 12 D) 11
15.	Two numbers have an average of 10 and a product of 91. The smaller of the numbers is	A) 7 B) 9 C) 11 D) 13
16.	The sum of all whole-number factors of 32 is	A) 7 B) 24 C) 30 D) 63
17.	A faucet drips once every 5 minutes. In 24 hours it drips $\underline{\quad}$ times.	A) 36 B) 72 C) 144 D) 288
18.	A rectangle is divided into four congruent regions, as shown. If the total area of the unshaded regions is 12, then the area of the original rectangle is	A) 4 B) 16 C) 18 D) 48
19.	What is the average of all odd numbers between 20 and 50?	A) 33 B) 34 C) 35 D) 36
20.	What is the difference between the greatest prime number less than 40 and the least prime number greater than 20?	A) 14 B) 16 C) 18 D) 19
21.	Forty minutes after 4:40 is forty minutes before	A) 5:20 B) 6:00 C) 6:20 D) 6:40
22.	$9201 \times 10201 = 6201 \times \underline{\quad}$	A) 13201 B) 15201 C) 17201 D) 19201
23.	10% of 20% of $\underline{\quad}$ is 30.	A) 30 B) 300 C) 600 D) 1500
24.	What is the greatest common divisor of $6 \times 7 \times 8 \times 9$ and $7 \times 8 \times 9 \times 10$?	A) $7 \times 8 \times 9$ B) $2 \times 7 \times 8 \times 9$ C) $6 \times 7 \times 8 \times 9$ D) $7 \times 8 \times 9 \times 10$
25.	If I round 12345 to the nearest 100, then divide by 1230, then multiply by 123, the result is	A) 12340 B) 1234 C) 1230 D) 123

