

1. Jane can make 16 parts in 2 hours. Which expression below represents the number of hours Jane needs to make 100 parts?  
 ① ② ③ ④ ⑤  
 (1)  $(2 \times 100) \div 16$   
 (2)  $(16 \times 100) \div 2$   
 (3)  $(16 \times 2) \div 100$   
 (4)  $(16 + 2) \div 100$   
 (5)  $2 \times 100 \times 16$
2. Peaches cost 90 cents a dozen. Which expression represents the cost of 8 peaches?  
 ① ② ③ ④ ⑤  
 (1)  $(12 \times 8) \times .90$   
 (2)  $(.90 \times 8) \div 12$   
 (3)  $.90 \div (12 \times 8)$   
 (4)  $(.90 \times 12) \div 8$   
 (5)  $(90 \times 8) \div 12$
3. A dvd player listed for \$350 is on sale for \$280. The sales tax is 6%. What is the **total** price of the dvd on sale?  
 ① ② ③ ④ ⑤  
 (1) \$259.00  
 (2) \$262.20  
 (3) \$296.80  
 (4) \$301.00  
 (5) \$324.00
4. Find the interest on a used car priced at \$3,000 at 15% for one year.  
 ① ② ③ ④ ⑤  
 (1) \$5  
 (2) \$15  
 (3) \$150  
 (4) \$450  
 (5) \$1500
5. Find the interest on \$3,000 at 15% for **6 months** (6 months is **PART** of a year).  
 ① ② ③ ④ ⑤  
 (1) \$200  
 (2) \$225  
 (3) \$350  
 (4) \$400  
 (5) \$900
6. Van Hook Nursery sold 50 Periwinkle plants. Of these 20% were white. How many plants were **white**?  
 ① ② ③ ④ ⑤  
 (1) 10  
 (2) 12  
 (3) 13  
 (4) 15  
 (5) 40

7. The ratio of rainy days to sunny days in August was 3:2. If it rained 18 days of the month, how many days were **sunny**?

	☉	☉	☉	
☉	☉	☉	☉	☉
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

8. Ed was doing knee bends. If he does 11 knee bends in 15 seconds, how many **knee bends** can he perform in one minute?  
 ① ② ③ ④ ⑤  
 (1) 11  
 (2) 22  
 (3) 32  
 (4) 44  
 (5) 55
9. If 150 gallons of gas were pumped in one hour, how many **hours** would it take to pump 1,500 gallons?  
 ① ② ③ ④ ⑤  
 (1) 6  
 (2) 8  
 (3) 10  
 (4) 11  
 (5) 12
10. Don's bill at a restaurant was \$19. He plans to leave a 15% tip. For what **total** amount should he write the check?  
 ① ② ③ ④ ⑤  
 (1) \$2.85  
 (2) \$16.15  
 (3) \$21.85  
 (4) \$28.50  
 (5) not enough information given

11. Emily is buying four items priced at \$4.39, \$2, \$.61 and \$6. The sales tax is 4%. She pays with a \$20 bill. **How much change** should she receive?

	○	○	○	
○	○	○	○	○
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

12. A pair of levis costs \$39.50. Sales tax is 4%. Find the **total** cost of the levis, including the sales tax?

① ② ③ ④ ⑤

- (1) \$1.58  
 (2) \$15.80  
 (3) \$40.08  
 (4) \$41.08  
 (5) not enough information given

13. There are 20 people in math class. **25% were absent**. How many were **in class**?

① ② ③ ④ ⑤

- (1) 2  
 (2) 5  
 (3) 14  
 (4) 15  
 (5) not enough information given

14. If 10% of 1,000 people voted, how many people **voted**?

① ② ③ ④ ⑤

- (1) 1  
 (2) 10  
 (3) 100  
 (4) 900  
 (5) 1000

15. If 10% of 1,000 people voted, how many people did **not vote**?

① ② ③ ④ ⑤

- (1) 1  
 (2) 10  
 (3) 100  
 (4) 900  
 (5) 1000

16. Find the interest on a loan with a principal of \$800 for 1 year with a rate of 9%.

	○	○	○	
○	○	○	○	○
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

17. The ratio of girls to boys at the Villa Elementary School is 5:4. There are 120 girls in the school. How many **boys** are there?

① ② ③ ④ ⑤

- (1) 60  
 (2) 96  
 (3) 120  
 (4) 150  
 (5) 600

18. The ratio of width to the length of a picture is 3:5. If the picture is enlarged to be 15 inches wide, how **long** will it be?

	○	○	○	
○	○	○	○	○
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

19. The ratio of blue to red paint in a certain mixture is 3:2. If Bella uses 6 gallons of blue paint for the mixture, how many gallons of **red** paint should she use?

① ② ③ ④ ⑤

- (1) 4  
(2) 6  
(3) 15  
(4) 18  
(5) 36

20. The ratio of wins to losses for the West Coyotes baseball team was 3:5. The team lost 25 games. How many games did they **win**?

① ② ③ ④ ⑤

- (1) 9  
(2) 15  
(3) 25  
(4) 45  
(5) 75

21. If Arthur can paint a wall in 40 minutes, what part of the wall can he paint in  **$\frac{1}{2}$  hour**?

① ② ③ ④ ⑤

- (1)  $\frac{1}{4}$   
(2)  $\frac{1}{2}$   
(3)  $\frac{2}{3}$   
(4)  $\frac{3}{4}$   
(5)  $\frac{4}{5}$

22. Susie drove 72 miles in  $1\frac{1}{2}$  hours. If she drives the same average speed, how many miles can she go in 4 hours?

① ② ③ ④ ⑤

- (1) 19  
(2) 72  
(3) 192  
(4) 270  
(5) 288

23. The scale on a map is  $\frac{1}{2}$  inch = 15 miles. How far apart are two towns which are 2 inches apart on the map?

① ② ③ ④ ⑤

- (1) 6  
(2) 25  
(3) 30  
(4) 60  
(5) 600

24. Debbie works 3 days a week and makes \$255. Which expression shows what Debbie would earn if she worked 5 days per week?

① ② ③ ④ ⑤

- (1)  $\frac{3}{5}(255)$   
(2)  $\frac{5}{3}(255)$   
(3)  $3(255)$   
(4)  $5(255)$   
(5)  $\frac{5}{255}$

25. The ratio of empty seats to the total number of seats in a theater is 1:4. If there are a total of 140 seats, how many seats were **empty**?

	○	○	○	
○	○	○	○	○
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

26. At Denver International Airport, the ratio of **delayed flights** to **on schedule flights** is 2:7. During a normal week there are **108 total** flights leaving Denver International Airport. How many of these flights are likely to be **delayed**?

	○	○	○	
○	○	○	○	○
①	①	①	①	①
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

27. Which of the following ratios is **NOT** equal to the ratio 12:36?

① ② ③ ④ ⑤

- (1) 3:9  
(2) 5:15  
(3) 9:36  
(4) 10:30  
(5) 16:48

28. One gallon of water weighs approximately  $8\frac{1}{3}$  pounds. If one cubic foot of water holds about  $7\frac{1}{2}$  gallons, what is the **approximate weight in pounds** of one cubic foot of water?

① ② ③ ④ ⑤

- (1)  $56\frac{1}{6}$   
(2)  $62\frac{1}{2}$   
(3)  $64\frac{1}{6}$   
(4)  $68\frac{1}{2}$   
(5)  $72\frac{2}{3}$

29. If Clyde can lose weight at the rate of  $1\frac{1}{4}$  pounds per week, how many weeks will it take to lose  $17\frac{1}{2}$  pounds?

① ② ③ ④ ⑤

- (1) 10  
(2) 11  
(3) 12  
(4) 13  
(5) 14

30. If there are about  $1\frac{2}{5}$  kilometers in 1 mile, about how many kilometers are there in 4 miles?

① ② ③ ④ ⑤

- (1)  $5\frac{3}{5}$   
(2)  $5\frac{7}{8}$   
(3)  $6\frac{1}{5}$   
(4)  $6\frac{1}{2}$   
(5)  $7\frac{1}{5}$