1. If $a = \frac{1}{2}$, $b = \frac{2}{3}$ and $c = \frac{3}{4}$, what is the value of $\frac{2a + 3b}{c}$?

(A) $\frac{1}{4}$ (B) $1\frac{1}{2}$ (C) $2\frac{1}{4}$ (D) 3 (E) 4

2. Which of the following is the equivalent of $\frac{4(O - P) - 8P}{6P - 2O}$?

(A) -3 (B) -2 (C) 0 (D) 1 (E) 2

3. One-half a number is 17 more than one-third of that number. What is the number?
(A) 52 (B) 84 (C) 102 (D) 112 (E) 204

4. In which, if any, of the following can the 2's be cancelled out without changing the value of the expression?

(A) $2x - 2m$ (B) $\frac{\frac{x}{2}}{\frac{2}{m}}$ (C) $\frac{2x - m}{2}$

(D) $\frac{x^2}{m^2}$ (E) none of these

5. $\frac{1}{y} = \sqrt{.16}$; $y = ?$
(A) .25 (B) .4 (C) 2.5 (D) 4 (E) 10

6. $7x - 5y = 13$
$2x - 7y = 26$
$5x + 2y = ?$
(A) 39 (B) -39 (C) 13 (D) -13 (E) 19.5

7. $-\frac{1}{7}$ and 0 are the roots of which of the following equations?
(A) $7x^2 - 3x = 0$ (B) $7x^2 + 3 = 0$
(C) $7x^2 - 3 = 0$ (D) $7x^2 + x = 0$
(E) $7x + 3 = 0$

8. $3r - 2s = 0$; $\frac{9r^2}{s^2} = ?$

(A) $\frac{1}{4}$ (B) 1 (C) 4 (D) 9 (E) $\frac{81}{4}$

9. $\frac{y}{s - t} = \frac{s + t}{t - s}$; $y = ?$
(A) $-s - t$ (B) $t - s$ (C) $t + s$ (D) $s - t$
(E) $t^2 - s^2$

10. $\frac{a}{b} = c$; $b = c$. Find b in terms of a.
(A) a (B) b (C) $\pm\sqrt{b}$ (D) $\pm\sqrt{a}$
(E) $\pm\sqrt{ac}$

11. $\frac{1}{\frac{1}{N}} \div \frac{1}{N} = ?$
(A) 1 (B) $\frac{1}{N^2}$ (C) $\frac{1}{N}$ (D) N (E) N^2

12. $\frac{a + b}{a - b} \div \frac{b + a}{b - a} = ?$
(A) $+1$ (B) -1 (C) ± 1 (D) $a^2 - b^2$
(E) $b^2 - a^2$

13. $3x + 10 = 9x - 20$
$(x + 5)^2 = ?$
(A) 5 (B) 10 (C) 15 (D) 25 (E) 100

14. $a = \frac{ax}{1 - x}$
$x = ?$
(A) $\frac{1}{2}$ (B) 1 (C) 2 (D) a (E) $2a$

15. If $x\sqrt{.16} = 2$, then x equals
(A) $\frac{1}{2}$ (B) 4 (C) 5 (D) 10 (E) 50

16. $\sqrt{x^2y^2 - y^2}$ equals

(A) $x - 1$ (B) $y\sqrt{x^2 - 1}$ (C) $y(x^2 - 1)$
(D) $(x^2 - 1)\sqrt{y}$ (E) $xy - y$

17. If $x^2 = 5$, then $6x^6$ equals
(A) 30 (B) 90 (C) 180 (D) 750 (E) 900

18. $17xy + 7 = 19xy$
$4xy = ?$
(A) 2 (B) 3 (C) $3\frac{1}{2}$ (D) 7 (E) 14

19. The expression a^x means that a is to be used as a factor x times. Therefore, if a^x is squared, the result is

(A) $a^{(x2)}$ (B) a^{2x} (C) $2a^{2x}$ (D) $2a^x$ (E) $2ax^x$

20. $2x - 4y = -10$
$5x - 3y = 3$
$3x - 6y = ?$
(A) $\frac{3}{5}$ (B) $\frac{2}{3}$ (C) -7 (D) 15 (E) -15

1. E	*3.* C	*5.* C	*7.* D	*9.* A	*11.* E	*13.* E	*15.* C	*17.* D	*19.* B
2. B	*4.* E	*6.* D	*8.* C	*10.* D	*12.* B	*14.* A	*16.* B	*18.* E	*20.* E