California High School Exit Examination
64. Which of the following inequalities represents the statement, "A number, $x$, decreased by 13 is less than or equal to $39 \%$

A $13-x \geq 39$
B $\quad 13-x \leq 39$
C $x-13 \leq 39$
D $x-13<39$
65. A shopkeeper has $x$ kilograms of tea in stock He sells 15 kilograms and then receives a new shipment weighing $2 y$ kilograms. Which expression represents the weight of the tea he now has?
A $x-15-2 y$
B $x+15+2 y$
C $x+15-2 y$
D $x-15+2 y$
66. Divide a number by 5 and add 4 to the result. The answer is 9 .

Which of the following equations matches
these statements?
A $4=9+\frac{n}{5}$
B $\frac{n}{5}+4=9$
C $\frac{5}{n}=4$
D $\frac{n+4}{5}=9$
67. At a local bookstore, books that normally cost $b$ dollars are on sale for 10 dollars off the normal price. How many dollars does it cost to buy 3 books on sale?

A $3 b-10$
B $3 b+10$
C $3(b-10)$
D $3(b+10)$
68. If $n=2$ and $x=\frac{1}{2}$, then $n(4-x)=$

A 1
B 3
C 7
D 10
69. If $h=3$ and $k=4$, then $\frac{h k+4}{2}-2=$

A 6
B 7
C 8
D 10
70. What is the value of $\left(3+5^{2}\right) \div 4-(x+1)$
when $x=7$ ?
A -7
B -1
C 8
C 8
D 10

## California High School Exit Examination



Time (hours)
71. After three hours of travel, Car A is about how many kilometers ahead of Car B?
A 2
B 10
C 20
D 25
72. The cost of a long distance call charged by each of two telephone companies is shown on the graph below.


Company A is less expensive than Company B for-
A all calls.
B 3 minute calls only.
C calls less than 3 minutes.
D calls longer than 3 minutes
73. The graph below compares the weight of an object on Earth to its weight on the Moon.


What is the approximate weight on the Moon of an astronaut who weighs 120 pounds on Earth?

A 15 pounds
B 20 pounds
C 25 pounds
D 30 pounds

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California High School Exit Examination

## Algebra and Functions

74. Amy works as a computer consultant. She charges $\$ 30$ per hour for her work. Which graph shows the relationship between the number of hours Amy works and the amount of money she charges for her work?
A

Hours Worked

C


D

Hours Worked


California High School Exit Examination
Algebra and Functions

| 75. $x^{3} y^{3}=$ |  |
| :---: | :---: |
|  | $\text { A } 9 x y$ |
|  | $\text { B }(x y)^{6}$ |
|  | C $3 x y$ |
|  | D xxxyyy |
| 76. What does $\boldsymbol{x}$ |  |
|  | A $\quad-32$ |
|  | B -10 |
|  | $\text { C }-\frac{1}{32}$ |

9. Simplify the expression shown below.
$\left(6 a^{4} b c\right)\left(7 a b^{3} c\right)$
A $13 a^{4} b^{3} c$
B $13 a^{5} b^{4} c^{2}$
C $42 a^{4} b^{3} c$
D $42 a^{5} b^{4} c^{2}$
10. Which expression is equivalent to $7 a^{2} b \cdot 7 b c^{2}$ ?

A $14 a^{2} b^{2} c^{2}$
B $\quad 49 a^{2} b c^{2}$
C $49 a^{2} b^{2} c^{2}$
D $343 a^{2} b^{2} c^{2}$
77. Which of the following is equivalent
to $(6 x-2)(6 x-2)(6 x+2)$ ?
A $(6 x-2)^{3}$
B $(6 x+2)^{3}$
C $2(6 x-2)(6 x+2)$
D $(6 x-2)^{2}(6 x+2)$
78. $\sqrt{4 x^{4}}=$

A 2
B $2 x$
C $4 x$
D $2 x^{2}$
moser

$$
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$$

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California High School Exit Examination
Algebra and Functions
81. Which of the following is the graph of $y=\frac{1}{4} x^{2}$ ?

82. Which of the following could be the graph of $y=x^{3}$ ?

A


B


C


D


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California High School Exit Examination

## 83. Which graph represents the function $y=-x^{2}$ ?

A


C


B


D


California High School Exit Examination


California High School Exit Examination
Algebra and Functions
87. What is the equation of the graph shown below?


A $y=x-1$
B $y=x+1$
C $y=x+3$
D $y=x-3$
88. What is the slope of the line below?

A $-\frac{3}{2}$
B $-\frac{2}{3}$
C $\frac{2}{3}$
D $\frac{3}{2}$
м м203s


B


C


D


California High School Exit Examination
90. The graph below shows Francine's electric bill for 4 different months. What is the price per kilowatt-hour of Francine's electricity?

91. In the inequality $2 x+\$ 10,000 \geq \$ 70,000$, $x$ represents the salary of an employee in a school district. Which phrase most
accurately describes the employee's salary?
A At least $\$ 30,000$
B At most $\$ 30,000$
C Less than $\$ 30,000$
D More than $\$ 30,000$
92. Solve for $x$.

$$
2 x-3=7
$$

A $\quad-5$
B -2
C 2
D 5
93. Solve for $n$.

$$
2 n+3<17
$$

A $n<2$
B $n<3$
C $n<5$
D $n<7$
94. The owner of an apple orchard ships apples in boxes that weigh 2 kilograms (kg) when empty. The average apple weighs 0.25 kg , and the total weight of a box filled with apples is 12 kg . How many apples are packed in each box?
A 14
B 40
C 48
D 56

## California High School Exit Examination

95. Brad bought a $\$ 6$ binder and several packs of paper that cost $\$ 0.60$ each. If his total was $\$ 13.20$, how many packs of paper did Brad buy?

A 2
B 6
C 12
D 22
96. Stephanie is reading a 456 -page book. During the past 7 days she has read 168 pages. If she continues reading at the same rate, how many more days will it take her to complete the book?
A 12
B 14
C 19
D 24
98. Sara can ride her bicycle 3 miles in 15 minutes. At this rate, how many miles can 15 minutes. At this rate, how many

A 5
B 10
$\begin{array}{ll}\text { B } & 10 \\ \text { C } & 15\end{array}$
D 20
99. Lisa typed a 1000 -word essay at an average rate of 20 words per minute. If she started typing at 6:20 p.m. and did not take any breaks, at what time did Lisa finish typing the essay?
A 6:40 p.m.
B $6: 50 \mathrm{p} . \mathrm{m}$.
C 7:00 p.m.
D 7:10 p.m.
97. Robert's toy car travels at 40 centimeters per second ( $\mathrm{cm} / \mathrm{sec}$ ) at high speed and $15 \mathrm{~cm} / \mathrm{sec}$ second $(\mathrm{cm} / \mathrm{sec})$ at high speed and $15 \mathrm{~cm} / \mathrm{sec}$
at low speed. If the car travels for 15 seconds at low speed. If the car travels for 15 second
at high speed and then 30 seconds at low at high speed and then 30 seconds at low
speed, what distance would the car have speed, what
traveled?
A 1050 cm
B 1200 cm
C 1425 cm
D 2475 cm

