A1 SOL Packet #1a

Evaluate Expressions

What is the value of this expression when $x = \dfrac{2}{3}$?

$$x^2 + 3x - 2$$

A $\dfrac{16}{3}$

B $\dfrac{40}{9}$

C $\dfrac{4}{3}$

D $\dfrac{4}{9}$

2013

What is the value of this expression when $a = 64$ and $b = {}^-5$?

$$-2\sqrt[3]{a} + b^2$$

2013

SAMPLE B

What is the value of $\dfrac{3}{x+2}$ when $x = 4$?

Your answer must be in the form of a fraction in simplest form.

2013

What is the value of $\dfrac{6x - 3y}{xy}$ when $x = 6$ and $y = {}^-4$?

A $\;{}^-2$

B $\;{}^-1$

C $\;2$

D $\;3$

2010

What is the value of the expression $3(x+4) - 2y$, if $x = 5$ and $y = {}^-3$?

F $\;{}^-7$

G $\;11$

H $\;21$

J $\;33$

2009

What is the value of the expression $\dfrac{1}{4}(x^2 - y^3)$ when $x = 5$ and $y = 1$?

A $\dfrac{7}{4}$

B $\dfrac{11}{2}$

C $\;6$

D $\;31$

2009

What is the value of the expression $\dfrac{x^y + z}{z}$ if $x = 4, y = 2,$ and $z = 2$?

A   5

B   9

C   10

D   16

If $\dfrac{1}{3}t - 6 = 15$, what is the value of t?

A   21

B   27

C   53

D   63

What is the value of

$$\dfrac{4x - 5y}{2y}$$

if $x = {}^-6$ and $y = 2$?

A $^-$26.5

B $^-$8.5

C $^-$3.5

D $^-$0.5

What is the value of $3x + 4y$ if $x = \dfrac{1}{3}$ and $y = \dfrac{1}{2}$?

F   17

G   3

H   2

J   1

What is the value of

$$\dfrac{mn}{r^2}$$

if $m = 7$, $n = 18$ and $r = 6$?

A   3.5

B   10.5

C   21

D   63

What is the value of

$$\dfrac{4m + 8}{4m + 4}$$

when $m = 4$?

A   0.5

B   1.2

C   1.7

D   2.0

What is the value of $a(3 - b)$ if $a = 2$ and $b = 5$?

A $^-4$
B 0
C 5
D 16

What is the value of $3x^2 - y^2$ if $x = {}^-1$ and $y = 3$?

A 12
B $^-3$
C $^-6$
D $^-12$

What is the value of $3(2x + 5y)$ if $x = 2$ and $y = {}^-3$?

A $^-33$
B $^-27$
C 33
D 57

What is the value of $a(b - c)$ if $a = 2$, $b = {}^-3$ and $c = {}^-2$?

A 2
B $^-2$
C $^-4$
D $^-10$

What is the value of $x(5 + y)$ if $x = 4$ and $y = 2$?

A 18
B 22
C 28
D 36

What is the value of $2a^2b + 5ab - 4$ if $a = {}^-4$ and $b = 5$?

F $^-264$
G $^-144$
H 3
J 56

What is the value of $\dfrac{a + b}{2b}$ if $a = 10$ and $b = 15$?

A $\dfrac{5}{6}$

B $\dfrac{5}{4}$

C   5

D   25

2000