Example 01

Prepared by: Sukarna Sarker

```
t1 = uminus c
t2 = b * t1
t3 = uminus c
t4 = b * t3
t5 = t2 + t4
a = t5
```

Three-address code

	op	arg1	arg2	result
0	uminus	c		t1
1	*	b	t1	t2
2	uminus	c		t3
3	*	b	t3	t4
4	+	t2	t4	t5
5	=	t5		a

Quadruples

Quadruples representation of three-address code

Prepared by: Sukarna Sarker

```
t1 = uminus c
t2 = b * t1
t3 = uminus c
t4 = b * t3
t5 = t2 + t4
a = t5
```

Three-address code

	op	arg1	arg2
0	uminus	c	
1	*	b	(0)
2	uminus	c	
3	*	b	(2)
4	+	(1)	(3)
5	=	a	(4)

Triples

Triples representation of three-address code

Prepared by: Sukarna Sarker

```
t1 = uminus c
t2 = b * t1
t3 = uminus c
t4 = b * t3
t5 = t2 + t4
a = t5
```

Three-address code

instruction	
35	(0)
36	(1)
37	(2)
38	(3)
39	(4)
40	(5)

	op	arg1	arg2
0	uminus	c	
1	*	b	(0)
2	uminus	c	
3	*	b	(2)
4	+	(1)	(3)
5	=	a	(4)

Indirect Triples

Indirect Triples representation of three-address code

Prepared by: Sukarna Sarker

Example 02

Prepared by: Sukarna Sarker

```
t0 = x * y
t1 = t0 + w
a[x] = 5
param w
param k
call foo,2
```

Three-address code

	op	arg1	arg2	result
0	*	x	y	t0
1	+	t0	w	t1
2	=	5	x	a
3	param	w		
4	param	k		
5	call	foo	2	

Quadruples

Quadruples representation of three-address code

Prepared by: Sukarna Sarker

```
t0 = x * y
t1 = t0 + w
a[x] = 5
param w
param k
call foo,2
```

Three-address code

	op	arg1	arg2
0	*	x	y
1	+	(0)	w
2	=	5	x
3	param	w	
4	param	k	
5	call	foo	2

Triples

Triples representation of three-address code

Prepared by: Sukarna Sarker

```
t0 = x * y
t1 = t0 + w
a[x] = 5
param w
param k
call foo,2
```

Three-address code

	instruction		op	arg1	arg2
25	(0)	0	*	x	y
26	(1)	1	+	(0)	w
27	(2)	2	=	5	x
28	(3)	3	param	w	
29	(4)	4	param	k	
30	(5)	5	call	foo	2

Indirect Triples

Indirect Triples representation of three-address code

Prepared by: Sukarna Sarker

Example 03

Prepared by: Sukarna Sarker

```
t1 = b * c
t2 = a + t1
t3 = b * c
t4 = d / t3
t5 = t2 – t4
```

Three-address code

	op	arg1	arg2	result
0	*	b	c	t1
1	+	a	t1	t2
2	*	b	c	t3
3	/	d	t3	t4
4	-	t2	t4	t5

Quadruples

Quadruples representation of three-address code

Prepared by: Sukarna Sarker

```
t1 = b * c
t2 = a + t1
t3 = b * c
t4 = d / t3
t5 = t2 – t4
```

Three-address code

	op	arg1	arg2
0	*	b	c
1	+	a	(0)
2	*	b	c
3	/	d	(2)
4	-	(1)	(3)

Triples

Triples representation of three-address code

Prepared by: Sukarna Sarker

```
t1 = b * c
t2 = a + t1
t3 = b * c
t4 = d / t3
t5 = t2 – t4
```

Three-address code

instruction	
35	(0)
36	(1)
37	(2)
38	(3)
39	(4)

	op	arg1	arg2
0	*	b	c
1	+	a	(0)
2	*	b	c
3	/	d	(2)
4	-	(1)	(3)

Indirect Triples

Indirect Triples representation of three-address code

Prepared by: Sukarna Sarker